

## ESTEEM INDUSTRIES INC.

### CABLES & INSULATING MATERIAL TESTING INSTRUMENTS

#### EST.CI 108- HIGH PRECISION WATER BATH



We are manufacturers of high precision water bath in India since 1990. Our high precision water baths are widely used for day to day bacteriological and varied laboratory applications requiring incubation as well as general tests and procedures in variety of research and testing laboratories. Apart from that, these high precision water baths have a variety of usages in tissue culture applications, enzyme reaction studies, growth observation studies, fermentation analysis and various other general and specialized applications in various laboratories.

We specialize in both standard and customized models, specifically designed to meet the challenging demands of various scientists for individual and specialized research applications. Over a short period of time Weiber brand have been established as reliable exporters of High precision water bath in India, catering to the vast markets in South East Asia, Middle East, Africa and Europe.

Apart from that we are supplying our high precision water bath in India, catering to a variety of customers ranging from Defence Installations, Research Laboratories, Educational Institutes and various R& D laboratories of leading national and multinational companies.

## **SALIENT FEATURES**

- Versatile usage.
- Ergonomic Design
- Energy Efficient
- Long life
- Low Maintenance
- Calibration And Protocol Documentation

### **CONSTRUCTION DETAILS HIGH PRECISION WATER BATH:**

Our serological water baths are double walled convection heated units. Outer body of our serological water baths is constructed out of thick PCRC steel sheet, duly pre-treated with primers for rust proofing and painted with air drying paint/stove enamel/powder coating. The inside chamber of the unit is made of heavy gauge stainless steel sheet of grade ss-304. The unit is provided with top opening cover, made of stainless steel with steel concentric rings. The unit is provided with one stainless steel racks

### **HEATING:**

Indirect heating system is provided in our water bath, comprising of air heaters made of high grade Kanthal A-1 wires of suitable wattage.. The temperature is evenly distributed throughout the chamber through natural water convection mechanism, ensuring a very good temperature sensitivity.

### **STIRRING:**

The unit is fitted with a high efficiency stirrer motor of 1/20 HP, so as to maintain the uniform temperature of our high precision water bath.

### **TEMPERATURE RANGE:**

Temperature range of our standard water bath models are 5°c ambient to 90° c. However we have the capacity to modify the same to suit the individual specialized requirements of our customers.

### **TEMPERATURE SENSITIVITY:**

Temperature inside our water bath are controlled with a sensitivity of + 0.2° c or better.(With PID Controller)

### **FRONT PANEL:**

Front panel of our water bath comprises of on/off switches heating and mains indicator lamps and temperature controller.

### **DATA ACQUISITION AND CONTROL SYSTEM FOR HIGH PRECISION WATER BATH**

This is unique module which can be incorporated with our high precision water bath to log in temperature and environment related data with a help of a data logger unit which has a pc connectivity by means of RS 232 C interface. This data is then analyzed and formatted with the help of our unique user friendly analysis software to enable the user to get a formatted and analyzed reports of various inputs during the full operation cycle of the equipment. This is an ideal module for pharmaceutical laboratories, process control applications and high research projects where maintaining a viable record of the performance of the equipment is very essential.

### **FEATURES:**

- Our system incorporates multiple Devices such as in line process Indicators, environment scanners and temperature or humidity controllers.
- Provides Astech cable for direct interface to any dot matrix or laser printer for online or offline data records printing
- It has Bulk data storage capacity with high data retention life.
- Facility to obtain nicely formatted print out of the logged data or records with proper headers.
- Our system provided facility to program recording interval with various options to suit individual requirements.
- It is provided with the feature to adjust or select baud rate for any serial communication port.

## AGEING OVEN



### EST.CI 101- AGEING OVEN

Thermoplastic and elastomeric Insulation & sheath exposed to heat are subjected to many type of physical & chemical changes. The severity of exposures, both in temp. & time, determines the extent & type of change that takes place. This test makes an assessment of change in tensile strength and elongation of materials on subjection them to accelerated ageing in air.

Oven designed to provide 8-20 changes of air per hour, at controlled temp. and extended duration up to 72 hours of longer.

Hydraulic Thermostat for an accuracy better than  $\pm 2^{\circ}\text{C}$

Conforms to IS:10810 (Pt-11), IS:5831.

Facility for fixing Hour-meter.

Also available Four Chamber Model with Individual Rotameter & Hour meter for bulk testing.

### EST.CI 102:- AC HIGH VOLTAGE TESTER UP TO 100 KV –250 KV



**Description:** -RE' High Voltage High capacity testers are specially designed for testing cables and Electrical Equipment as per I.S Specifications.

### EST.CI 103- DC HIGH VOLTAGE TESTER UP TO 150 KVA- 250 KVA



ESTEEM INDUSTRIES INC make High voltage testing sets are suitable for testing electrical insulation of condensers, transformers, motors, insulators, cables etc. The sets are capable of giving continuously variable DC HIGH VOLTAGE from zero to maximum rated output voltage.

**Input:** Generally, 230 Volts, 50Hz, single phase AC.

However, we also manufacture DC H.V. sets workable on other input voltage at extra cost.

**Output:** Continuously variable from zero to maximum rated output voltage.

**Capacity:** Spread over a wide range of sets from 1 KV to 300KV with current capacity upto 100mA. Sets of higher current capacity can also be manufactured.

**Duty cycle:** Intermittent i.e., 5 minutes ON, 10 minutes OFF.

However, test sets of continuous or other duty cycles can also be manufactured at extra cost.

**Metering:** Output DC high voltage measured by HV resistor chain along with micro-ammeter scaled in kV. Milli-ammeter to measure the leakage current.

Digital meters may be provided at extra cost.

**Protection:** Overload & short circuit provided. Zero start interlocking along with Overvoltage alarm & indication are provided.

**Mode of operation:** Generally, sets are manually operated. Motorisation facility can be available at extra cost.

**Units:** Generally DC high voltage test sets are available in one unit upto 35KV and sets of higher output voltage are commonly manufactured in two units i.e. the control unit & Transformer-Rectifier unit. This Transformer-Rectifier unit are made cascaded type above 80KV. However, NTPL always welcome customers' choice regarding the no. of units.

**Discharge rod:** A discharge rod is provided with the set.

DC high voltage is generally obtained by simple rectification of AC high voltage or by multiplication of relatively low AC high voltage by proper multiplier circuits as is found suitable for a particular DC HV test set. HV transformers of the Test Sets are Cast Resin types.

**While sending enquiry for quotation or order please specify the following:**

- Input voltage and frequency.
- Maximum output voltage.
- Capacity.
- Duty Cycle.
- Mode of operation: Manual/Motor operated.
- Any other details you find important to be specified.

### **EST.CI 104- AC SPARK TESTER 0-15 KV/0-30KV**



Description: High Voltage Spark Testers are designed for checking the quality of PVC coated wires during manufacturing at shop floor. The PVC wire is passed through brass ball chains which carry high voltage.

### **EST.CI 105- DC SPARK TESTER 0-40 KV**



#### **DESCRIPTION**

Are designed for checking the quality of PVC coated wires during manufacturing at shop floor. The PVC wire is passed through brass ball chains which carry high voltage. If any pin hole comes in PVC, a spark develops and electro magnetic counter counts the fault. The spark tester is necessary for every cable manufacturing unit. The equipment uses a high frequency oscillator circuit for rising frequency to search the fault at low leakage current and signifies that as a fault, the fault is displayed to the operator by means of a visual indicator and audible. The equipment can test a variety of cable at various voltages for which KV setting & sensitivity setting is provided.

The different Spark Testers manufactured are of

Power Frequency (50Hz)

High Frequency (500 Hz/3000Hz-5000Hz)

**The Power Frequency Spark Tester** is a Conventional Spark tester, being used by wire and cable manufacturers, since the start of cable manufacturing. These spark testers hold the efficiency gradient of approximately 85%. They leave a burn mark on the cable/wire at the point of fault, which makes it easier to locate and isolate / mend the fault.

Suitable up to 200 Meter per minute

Easy to operate

**The High Frequency Spark Tester** is used for High speed precision jobs where the requirement is of seizing the maximum number of faults. These Spark Testers can be used for high speed extruders and high speed Recoiling processes. The efficiency of a high Frequency Spark Tester is upto 95%-98%. This efficiency is much better than conventional spark tester.

#### **SPECIAL FEATURES**

- ✳ High Speed operation upto (1000 m/ min).
- ✳ Much smaller and higher unit.
- ✳ Computer Interface facility available.
- ✳ Efficiency of operation upto 95%.
- ✳ Suitable for extruder and recoiling.

## EST.CI 106- DOUBLE KELVIN BRIDGE



### DESCRIPTION:

Esteem Industries INC specializes in testing instruments for wire and cable industries. The kelvin double bridge is very suitable for low resistance measurements. The salient features of Esteem Double Kelvin Bridge are as follows:-

- Four terminals method and kelvin principle for eliminating contact and lead resistance.
- Properly aged manganin wire resistances are used.
- Reproducible measurements [same value even after 25000 operations].
- Zero setting provision [provided on slide wire dial].
- Hard silver plated switches are used [specially designed].
- Current switch with reverse facility eliminates thermal e.M.F

## EST.CI 107- FLAMMABILITY TEST APPARATUS



This test apparatus is for verifying the resistance to fire alone of electrical cables used for wiring and interconnection where it is required to maintain circuit integrity under fire conditions for longer periods than can be achieved with cables of conventional construction. Esteem Flammability Testing facilities contain several rooms for full scale room burns, large hoods for open calorimetry and Intermediate Scale Calorimeter (ICAL) testing, and a climate controlled conditioning room.

- ✦ Room Burn Apparatus - The room burn apparatus is used for testing wall panels, wall coverings, foam plastics, and an assortment of other materials and configurations.
- ✦ Furniture Tests - Our furniture-testing lab is used to evaluate the heat release of components and full scale furniture including upholstered furniture and mattresses. We can perform testing to virtually all applicable standards, including ASTM E1537, BIFMA, NFPA 266, NFPA 267, UFAC, and California Technical Bulletins 116, 117, 129, and 133.
- ✦ Open Calorimeter - In addition to room testing, calorimeter tests can be run under the open hood in compliance with federal, state or local fire codes and requirements including testing to UL 1056 and UL 1895. The hood can also be used to run custom tests of materials such as demonstrating the flammability of children's sleep-wear.

Intermediate Scale Calorimeter (ICAL) - The Intermediate Scale Calorimeter (ICAL) is used for testing to ASTM E1623, to determine ignitability, heat release rates, mass loss rates, and smoke development of materials, products and assemblies under a large hood.

## FLAMMABILITY TEST APPARATUS (II)



The Test Apparatus comprises of a 4m x 2m x 1m Chamber constructed as per specifications in IEC-60332, Part 3 duly insulated. The Equipment is provided with a Ribbon Type Burner with Stand & Ladder. The quantum of gas is controlled & measured by means of a Flowmeter provided for air & fuel gas respectively.

The fuel can be Propane or LPG. (The Customer has to specify whether he will use LPG as the Burning gas or Propane at the time of placing the Order). Also provided is an Air Velocity Measurement & Control System to control the Air Velocity of the Chamber.

It uses an Electronic Anemometer to measure the Air Velocity & a specially designed Turbo Blower is provided with a butterfly valve to control the velocity of air in the Chamber.

### FLAMMABILITY TEST APPARATUS (III)



The Flame-retardant characteristics of electric cables depends upon, raw material used during manufacture, design & external circumstances. Several tests have been designed to determine the flammability of the material used in cable or even the fire properties of bunch of cables.

**IEC: 60331** Test is for Fire Survival Cables.

**IEC: 60332 Part 1 & Part 2** and **IS: 10810 Part 53** is Flammability Test Apparatus for single cable.

**IEEE: 383** is Type Test of Class IE Electric cables, Field Splices, and Connections for Nuclear Power Generating Stations.

**IEC: 60332 Part 3** covers Test on Bunched Cables, conducted in 4x2x1 meter chamber fitted with Ribbon Burner, Flow Meters & Air Flow Controls.

## ESTEEM SMOKE DENSITY TEST APPARATUS



Esteem Smoke Density Test Apparatus is used For measuring & observing the relative amounts (Density) of Smoke produced by the burning (combustion) or decomposition of plastics, cables etc., under controlled & standardized conditions.

Electronic Timer with 1.5 Second pulse at every 15 Secs. with 'Hold' facility for easy readability of percentage absorbance of smoke.

Linear Amplifier Digital Electronic photometer with a 0 to 100% absorbance scale.

Conforms to various National & International Standards like ASTM.

Standard Neutral Density filters for periodic calibration of equipment, (optional).

### 3 METER CUBE SMOKE TEST APPARATUS



This unit was first developed by London Transport Scientists in England. In 1990 they took delivery of a 3 Metre Cube. The 3 Metre Cube is used for measuring smoke emission when electric cables are burned under defined conditions, for example, a few cables burned horizontally. The equipment comprises a cubic enclosure and a photometric system.

These units are produced to meet the specification used in many electric cable tests. The unit can be supplied in a self-assembly kit form or can be fully installed by **SA Associates**. The unit is made of Zintec steel sheet and can be supplied with customized extraction facilities and all instrumentation, fans, stands and sample mounting frames. The photometric system can be supplied separately.

#### THE UNIT COMPRISES:

- 3 Metre Cube assembly.
- Photometric system, stands, fans and sample mounting frames.
- Extraction fan.
- Full PC with Dedicated Software.
- Measurement of smoke density of electric cable under fire conditions conforming to **IEC: 1034-1, 1034-2 BS 6853**.
- 3 meter Cube Smoke Density Chamber as per Draft iS: **ETDC-59 (2240/63) & UITP**.

## ESTEEM THERMAL STABILITY TEST APPARATUS



- To measure/check Thermal stability of PVC Insulation & Sheath of Electric Cables as per As per IS: 5831 & IS: 10810 and heated in a temp. Controlled chamber.
- Measures Thermal Stability time in minutes required to change the pH value of 5 to 3 of a Universal Indicating pH paper placed in a glass tube containing sample & heated in a temp. Controlled heating chamber at specified temp. Of 200°C to  $\pm 0.5^\circ\text{C}$ .
- New model incorporates a specially designed Heating Block which eliminates use of expensive silicone oil as in a conventional model.

## ESTEEM THERMAL AGEING OVEN CABLE



- Thermoplastic & elastomeric insulation & sheath exposed to heat are subjected to many types of physical & chemical changes. The severity of exposures, both in temp. & time, determines the extent & type of change that takes place. This test makes an assessment of change in tensile strength and elongation of materials on subjecting them to accelerated ageing in air.
- Oven designed to provide 8-20 changes of air per hour, at controlled temp. and extended duration up to 72 hours or longer.
- PID temp. controlled for an accuracy better than  $\pm 2^{\circ}\text{C}$ . Temp. range upto  $190^{\circ}\text{C}$ , higher temp. available on request.
- Conforms to IS:10810 (Part-11), IS: 5831, IEC:540 & other intl. standards.
- Fitted with Hour-meter.
- Also available Single Cell Model.

## ESTEEM LABORATORY COLD CHAMBER



Temp range ambient -20°C. The apparatus has been designed to conduct cold bend and cold impact test.

Temp range ambient -40° C. The apparatus has been designed to conduct cold bend and cold impact test.

Cold chamber for lower temp. Up to -70° C ranges also available on request.

### **EST.CI 110- TENSILE TESTING MACHINE, CAP.250KG. TO TONES**



#### **DESCRIPTION:**

Tensile Testing Machines for universal application, in substantial two column construction, especially designed for metallurgical and research laboratories.

The machines are capable of giving accurate data on the physical properties of materials in a rapid and simple manner.

Suitable for conducting tensile tests on materials aluminium, rubber, plastic, leather, asbestos, PVC, etc., as per various standards like IS, BS, DIN, ASTM etc. The specimens in shapes of wires, cables, dumbbell, and strips can be tested by selection of appropriate grips.

## ESTEEM THERMAL STABILITY TEST APPARATUS



- To measure/check Thermal stability of PVC Insulation & Sheath of Electric Cables as per IS: 5831 & IS: 10810 and heated in a temp. Controlled chamber.
- Measures Thermal Stability time in minutes required to change the pH value of 5 to 3 of a Universal Indicating pH paper placed in a glass tube containing sample & heated in a temp. Controlled heating chamber at specified temp. Of 200°C to  $\pm 0.5^\circ\text{C}$ .
- New model incorporates a specially designed Heating Block which eliminates use of expensive silicone oil as in a conventional model.



## MAGNIFICATION

Standard profar 10x objective (optional magner 20x, openar 50x, or magner 100x multilayer coated imported objectives available at Extra Cost).

### **Lens Mouth**

Three lens rotating turret boyant type

### **Magnification Accuracy**

+ - 0.05 % contour + - 0.10% surface.

### **Screen Illuminator**

300mm fine ground glass screen with cross line and edge to edge image contrast. Rotatable 0 to 360° with vernier reading to 1 minute.

### **Contour Illuminator**

Standard profar 10x objective (optional magner 20x, openar 50x, or magner 100x multilayer coated imported objectives available at Extra Cost).

## ESTEEM SURFACE ILLUMINATOR

Set of spot light illuminators with 12V 50W halogen lamp and variable light control.



Stage

Highly accurate ball bearingguided micrometer work stage 150mm x 150mm with zero adjustment micrometer head 0.001mm Accuracy.

### **Stand**

Steady aluminium moulded stand.(bench model).

### **Optional**

X-Y Digital readout system with present arrangement.

- Digital Displays
- Software (Quadra Chek)
- X-Y Digital readout system with present arrangement.

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**ESTEEM HOT DEFORMATION TEST APPARATUS IS:10810 (PART-15)**



A thermostatically controlled electric oven in which the test temp. can be maintained with an accuracy of  $\pm 20$  C, mounted in such a manner as to be free from vibration (Oven Optional).

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## ESTEEM OZONE TEST CHAMBER



Ozone test chambers with digital readout to meet requirements of IS: 10810 Part 13 and IEC-540 IS 3400 part XX and ASTM standards. For testing of rubber hoses, vulcanized rubber, rubber cables and elastomeric materials. Absolute calibration based on Beer-Lambert absorption law.

- Two minute warm-up time.
- No chemicals required.
- Automatic temperature compensation.
- Calibrated pressure compensation.
- Direct reading digital display.
- Specific to ozone.
- Rapid and accurate.
- 0-1000 PPM measurement.
- Three operating ranges.

## SEQUENTIAL MARKER



Sequential Measuring & Marking Machine suitable for various types & size of Vinyl, Polyethylene, Cross-link Poly & Rubber Cables from 8 to 65 mm dia, suitable for On-line operations/Rewinding line.

Progressive Numbering Unit with heaters for lasting impression/indentation.

3 mm high numerals & `Reference mark` at every 1 meter length.

Easy availability of marking tapes in white, black or other colours.

### ALSO AVAILABLE:

Sequential Measuring & Marking Machine with embossing meters instead of indenting type.

Embossing rollers to print names, drum numbers, year of manufacture and other details.

## TOXICITY INDEX TEST APPARATUS



### FEATURES:

- The Chamber has a steel framework for strength and is constructed from fire retardant grade polypropylene with welded seams and a volume of 0.7 cubic meters.
- The Door, which gives full access to the Chamber for easy cleaning is constructed from clear polycarbonate sheet, backed with laminate for strength and rigidity.
- Gas Burner has a spark ignition system which automatically re-ignites should the flame extinguish.
- The sampling positions are provided for use with colorimetric Gas Reaction Tubes or optional specific Gas Analysers.
- A sampling port with a special pump to use the flow meter and other air controls.
- Forced-air extraction system for evacuating the Chamber after a test.
- Internally mounted Stirring Fan for rapid mixing of combustion products.
- Chamber Dimensions (mm) 1100 (w) × 800 (d) × 1300 (h)
- Control Unit Dimensions (mm) 530 (w) × 270 (d) × 280 (h)
- Voltage: Dual - 110V-60Hz 3A - 230V-50Hz 2A
- Weight: 70kg

## ESTEEM ULTRA VIOLET CONDENSATION TEST APPARATUS



The **Esteem UVCON** is a device for exposing materials to alternate cycles of Florescent ultra-violet light & condensation. The Unit provides a screening test for coatings, plastics, pigments & the like which may be specifically affected by the UV portion of sunlight spectrum alongwith moisture penetration. Screeing test of this type can give early indications as to how the material must be expected to perform in a natural outdoor environment.

The **Esteem UVCON** uses it's light source eight FS-40 Flourescent Sun Lamps. These Lamps are mounted in two banks of four each, are rich in Ultra-Violet energy between 280-350 watts at an operating voltage of 220 volts. An electrical discharge within the tube generates Ultra-violet energy at 254 Nanometers which excites the Phosphor coating causing it to flouresce & radiate approx. 85% of the lamp's energy between 280-350 Nanometers. In the natural sunlight spectrum below 350 NM, accounts for only about 3% of the total radiant energy. The UV below 310 NM produced by these lamps at sample face (50mm from the lamp) is several times greater than that of natural sunlight & is the principal cause for acceleration in a test.

The fluorescent sun lamp produce virtually no significant visible or infra-red energy. Lamp Intensity normally deteriorates by about 20% during 1600 hours of useful life & the lamps are changed on rotation basis. Every 400 hours a new Lamp is installed in each bank of 4. This method ensures reasonably uniform radiation at the sample face. The condensation of Esteem UVCON is produced by heating water in a stainless steel sump of the Unit with an Electric Immersion heater. Natural convection causes saturated air to move up across the face of the exposed panels. Mounted in their rack these panels act as exterior walls of the Test Chamber. Ambient room air moving across the backs of the Test Panels causes a temperature differential & dew droplets condense on the panel face. The condensation cycle allows water to form naturally free of mechanical & thermal shock with maximum purity. During a typical 24 hour cycle, the UVCON uses about 8 litres of water. The UVCON has two specimen racks, 330 mm high & 1154 mm wide, each facing one bank of lights. Can accommodate a total of 20 rack panels, approximately 100 mm x 300 mm.

### **CONTROLS**

A Programme Timer automatically controls the UV & Condensation cycles of the UVCON & programming. Each can one Programme Cycle typically 24 hours of UV followed by four hours of condensation.

Temperature is measured & controlled by a solid state circuit. A PT-100 Sensor is mounted in a black aluminium panel on the specimen rack. The temperature is set by the Operator using Digital Thumb wheel switches & monitored by a readout Digital Panel Meter on the Control Panel. The UVCON is normally operated between 50 & 70 plus minus 3 degrees celsius. During the Ultra-violet exposure & between 40 & 50 plus minus 3 degrees celsius during condensation exposure.

### **ESTEEM WATER ABSORPTION TEST APPARATUS (VACUUM OVEN)**



- Vacuum pump is not part of the equipment .
- May be procured directly by the user.
- We can help in sourcing the pump.

The outer body is made of mild steel sheet. The inner chamber is made of Stainless steel and heaters are clamped to its outside wall and operated at low heat. Glasswool insulation is used between the two walls. Temperature control is provided by a P.I.D Controller with PT - 100 sensor having excellent durability and accuracy. The oven is fitted with a digital vacuum gauge readable in MILIBAR SCALE. An inlet is provided for application involving the use of an inert gas. The inlet can be closed when gas is not used. Mains on and Heaters on indicating lamps are provided. Electrically Operated at 230 V AC, Single Phase, 50 Hz supply.

**Inner Chamber Dimensions:** 25 cm dia x 30 cm depth or 30 cm x 30 cm

**Temp. Range:** 50 - 150 C

**Exterior finish:** White

**Working Chamber:** S.S, Buffed and polished

**Input Power:** 500 Watts

## ESTEEM HOT SET TEST APPARATUS



The Apparatus consists of a double walled Aluminium Heating Chamber. Inner dimensions 300mm width x 500mm ht. X 200mm depth. Capacity: 30 litres. Provided with a full view glass door. The temperature is controlled by means of a P.I.D Controller.

### **TEMPERATURE RANGE:**

A few degrees above ambient to 300 degrees cent., +/- 3 degrees. The Oven is so designed to give 8-20 changes of air per hour. The same is achieved by passing the required amount of air through the air inlet provided at the bottom of the Oven. To achieve the max. no. of changes i.e. 20, one is required to pass approx. 10 litres air/per min. Please note that the Air Compressor is not provided with the Equipment. The air flow is measured through an Air flow Meter provided alongwith the Equipment.

The equipment is supplied with jaws & 1 set of weights to hang 1 sample at the top of the Oven. Although provision is made to accommodate 2 samples. For the measurement of elongation, 1 imported dial gauge, 50mm scale is provided which enables one to read the elongation directly on the dial.

### **OPTIONAL**

If an additional second sample is to be tested a spare set of jaws with dial gauge & weights can be ordered at additional cost.

### **ROLLING MILL**



- To prepare sample sheets from PVC granules for quick testing of raw material/finished products in laboratory.
- Eliminates need of running extruders on production lines, thus saving precious raw material & production loss.
- Electrically heated rollers.
- Rolling mill is made of corrosion resistant steel, surface hardened and polished.
- High temperature sealings are used for the bearings.
- Both rolls run at a fixed speed and with a constant friction ratio.

#### TECHNICAL DATA

<b>Roll diameter:</b>	150 mm
<b>Roll width:</b>	300 mm
<b>Working width:</b>	275 mm
<b>Roll Speed:</b>	Approx. 22/27 min <sup>-1</sup>
<b>Power:</b>	2 * 1.5 kW
<b>Torque:</b>	500 Nm
<b>Roll Temperature:</b>	Up to 220° C

#### ESTEEM CARBON BLACK DISPERSION TEST APPARATUS



- Integral illumination system permanently pre-aligned, transmitted light or incident light or both.
- 6V 20W Halogen incident and transmitted illuminators with variable intensity control.
- Independently focusable 10X widefield eyepieces.
- Trinocular head inclined 45°.
- 800 X objective Magnification.
- Extension tube for photo micrographic accessories.
- Quintuple ball-bearing nosepiece.
- Coarse adjustment tension control.
- Yellow and Green Lollypop filters.
- Graduated mechanical stage. 4" x 5" semi-conductor stage optional.
- Nosepiece rotatable 360°
- Binocular head inclined 45°
- 1.25 N.A. Abbe Condenser for transmitted light.
- Rack and pinion substage on transmitted light models.
- Incident illumination for electronics inspections.
- Ball-Bearing focusing and stage.
- Objectives specially coated for high light transmission.
- Simple switch-over from transmitted to incident light.
- Simple bulb changeover and alignment.
- All major parts of metal construction.

VISIT US : [WWW.ESTEEM.IND.IN](http://WWW.ESTEEM.IND.IN)

**PAYMENT TERMS :**

## PAYMENT TERMS COMMON FOR ALL THE ABOVE MENTIONED MODELS

### PAYMENT TERMS :

#### Who are our Bankers and what are our Banking particulars?

#### Who are our Bankers and what are our Banking particulars?

#### Our Bankers are:

Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.  
SWIFT CODE: UBININBBCHA

#### Esteem Industries INC. A/C No.: 398905010050309

May you like to Transfer Payment (T/T) to us, then depending upon the currency of remittance kindly choose one of the following methods:

#### **PAYMENT PROCEDURE FOR USD \$**

**PAYMENT PROCEDURE :** For making SWIFT Transfer payment of US\$ \_\_\_\_\_, please give the following information to your bank:

#### **Intermediary Banks:**

1. Citibank. New York ,Swift code: CITIUS33
2. Bank of America. New York, Swift code: BOFAUS3N
3. Bank of New York. New York, Swift code: IRUTUS3N
4. Standard Chartered Bank. New York, Swift code: SCBLUS33
5. JP Morgan Chase Bank. New York, Swift code: CHASUS33
6. American Express Bank. New York, Swift code: AEIBUS33

#### **Beneficiary Bank:**

Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.  
Swift Code: UBININBBCHA  
Beneficiary: Esteem Industries INC

#### **Account No. 398905010050309**

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

#### **PAYMENT PROCEDURE FOR GBP £**

**PAYMENT PROCEDURE :** For making payment of Sterling Pound £\_\_\_\_\_, please give the following information to your bank:

#### **Intermediary Banks:**

1. National Westminster Bank. London, Swift code: NWBKGB2L
2. HSBC London (Midlands), Swift code: MIDLGB22

Beneficiary Bank: Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.

Swift Code: UBININBBCHA  
Beneficiary: **Esteem Industries INC**

#### **Account No. 398905010050309**

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

	<p><b>PAYMENT PROCEDURE FOR EURO</b>  PAYMENT PROCEDURE : For making payment of Euro_____, please give the following information to your bank:  <b>Intermediary Bank:</b>  1. Commorz Bank Dusseldorf Germany, Swift code: COBADEDD  2. Bank commercial Italiana, Swift code: BCITITMM  3. Societe Generale Paris, Swift code: SOGEFRPP  4. ABN Amro Bank. Amsterdam, Swift code: ABNANL2A</p> <p>Beneficiary Bank: Union Bank Of India,  SCF-3, Sector 21-C, Chandigarh,  UT, INDIA.  Swift Code: UBININBBCHA  Beneficiary: <b>Esteem Industries INC</b>  Account No. 398905010050309</p> <p>Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.</p> <p>Note: Please make sure we are INFORMED before and after sending any payment to our Bank Account.</p>
<b>E-MAIL :      <a href="mailto:INFO@ESTEEM.IND.IN">INFO@ESTEEM.IND.IN</a></b>	

