



XIEEPL
Enriching Technical Education



PRODUCT CATALOGUE
ENVIRONMENTAL / PUBLIC HEALTH ENGG. LAB EQUIPMENT

CEMENT-CONCRETE-AGGREGATE LAB EQUIPMENT

Item No	Item Name	Item No	Item Name
001	Blaine's Air Permeability Apparatus	024	Tile Flexure Testing Machine
002	Cement Sampler	025	Cube Moulds
003	VICAT Needle Apparatus	026	Tile Abrasion Testing Machine
004	Le-Chatelier Mould	027	Needle Vibrator
005	Le Chatelier Flask	028	Tensile (Briquette) Strength Tester
006	VEE BEE Consistometer	029	G.I. Frame Coarse Sieves
007	Slump Test Apparatus	030	Brass Frame Fine Sieves
008	Compaction Factor Apparatus	031	Cylindrical Moulds
009	Kelley Ball Penetration Apparatus	032	Beam Moulds
010	Mortar Mixer	033	Shrinkage Bar Moulds
011	Water bath	034	Aggregate Crushing Value Apparatus
012	Flow Table	035	Aggregate Impact Testing Machine
013	Flow Table - Motorised	036	Sieve Shaker Machine
014	Laboratory Concrete Mixer	037	Bulk Density Apparatus
015	Laboratory Pan Mixer	038	Specific Gravity Of Aggregates
016	Laboratory Cement Autoclave	039	Los Angeles Abrasion Testing
017	Rapid Chloride Penetration Test	040	Elongation Index & Flakiness Index
018	Length Comparator	041	Cone Penetrometer For Mortar
019	Vibrating Table	042	Rebound Hammer
020	Vibrating Machine / Mould Vibrator	043	Digital Concrete Test Hammer
021	Flexure Testing Machine	044	Ultrasonic Pulse Velocity Tester
022	Flexure Testing Machine -Motorised	045	General Instruments
023	Concrete Permeability Apparatus		

GEOTECH (SOIL) TESTING LAB EQUIPMENT

Item No	Item Name	Item No	Item Name
046	Plastic Limit Set	059	Proctor Needles (Spring Type)
047	Shrinkage Limit Set	060	Rapid Moisture Meter
048	Liquid Limit Device	061	Consolidation Test Apparatus
049	Soil Cone Penetrometer	062	Direct Shear Apparatus
050	Semi Automatic Cone Penetrometer	063	Soil Permeability Apparatus
051	Sand Pouring Cylinder	064	Unconfined Compression Test
052	Sand Density Cone Apparatus	065	Hydraulic Sample Extractor
053	Core Cutter	066	Triaxial Shear Test Apparatus
054	Standard Proctor Test Apparatus	067	Swell Test Apparatus
055	Relative Density Apparatus	068	Point Load Index Tester
056	Pycnometer	069	CBR Apparatus
057	Relative Density Bottles	070	Vane Shear Test Apparatus
058	Pocket Penetrometer	072	General Instruments

MATERIAL TESTING / STRENGTH OF MATERIAL LAB EQUIPMENT

Item No	Item Name	Item No	Item Name
073	Universal Testing Machine	079	Rockwell Cum Brinell Hardness Tester
074	Compression Testing Machine	080	Vickers Hardness Tester
075	Charpy, Izod Impact Testing Machine	081	Mechanical Extensometer
076	Torsion Testing Machine	082	Fatigue Testing Machine
077	Spring Testing Machine	083	Cantilever & Simply Supported Beam
078	Poldi Hardness Tester	084	Jominy End Quench Hardenability

ASPHALT /BITUMEN TESTING LAB EQUIPMENT

Item No	Item Name	Item No	Item Name
085	Ring & Ball Apparatus	092	Benkelman Beam
086	Automatic Standard Penetrometer	093	Thin Film Oven
087	Ductility Testing Apparatus	094	Cleveland Flash & Fire Point Apparatus
088	Bitumen Centrifuge Extractor	095	Pensky Marten Flash Point Apparatus
089	Bituminous / Asphalt Mixer	096	Saybolt Viscometer
090	Marshall Stability Test Apparatus	097	Standard Tar Viscometer
091	Automatic Bituminous Compactor	098	Stripping Value Apparatus

ENVIRONMENTAL / PUBLIC HEALTH ENGINEERING LAB EQUIPMENT

Item No	Item Name	Item No	Item Name
099	Muffle Furnace	105	C.O.D Digestion Apparatus
100	Hot Air Oven	106	Laboratory Hot Plate
101	Glass Water Distillation Unit	107	Respirable Dust Sampler
102	Digital Weighing Balance	108	Humidity / Stability Test Chamber
103	BOD Incubator	109	Analytical Testing Instruments
104	Jar Test Apparatus (Flocculator)		

110. SURVEYING LAB EQUIPMENT

099 : MUFFLE FURNACE

Characteristics of the Products:

Outer casing is made of Double walled thick / CRC/Mild Steel Sheet duly powder coated.

Better ceramic Blanket High Temp. Insulation to avoid heat loss.

Chamber construction includes a long life grooved refractory chamber to support Kanthal heating Element on 3 sides through its walls its feature include: quick Temperature rising, Lasting warranty & constant Temp.

Better Precise Digital Temp. Controller Cum Indicator having Alarm facility at high Temp. easy operation.

Kanthal A-1 Super quality Coil shaped Heaters duly wounded (in case of 900°C Temp.) & 1200°C range coil shaped open heater heavy gauge to stand continuous Temp. up to 1150°C.

Silicon Rods are provided in case of High Temp. 1350°C high Temp. Furnace, supplied with Transformer unit & Pt-Pt RH Thermocouple its control manually & automatically the Amps. of silicon rods as per Temp.

Requirement.

Unique design of ventilation / Chimney provided at the back of the Muffle Furnace (For Fumes outlet)

Technical Parameters:

Control Panel: Mains, Load Indicator, Sunvic (ER) Regulator & Mains Indicator, Temp. controller.

Temperature Range: Ambient to 900°C or 1150 °C or 1350 °C

Temperature Stability: ±2°C or better

Duty Cycle: Continuous

Insulation: High Ceramic Blanket & Board Insulation

Housing Material: CRC / Mild Steel Sheet duly Powder Coated

Optional: Outer body of S.S 304 grade (Can be made against order)

Interior: Ceramic Board & Grooved Refractory Chamber as per Temp. Requirement

Power Consumption: Single Phase 230V, AC ±10% 50Hz & 3 phase 440V

Optional: RS 232 Communication interface



Inside Chamber Size	Temp / Wattage	Temp / Wattage
100 x 100 x 225 (4" x 4" x 9")	900°C/ 1.5 KW	1150°C/ 2.5 KW
125 x 125 x 250 (5" x 5" x 10")	900°C/2.0 KW	1150°C/ 3.0 KW
150 x 150 x 300 (6" x 6" x 12")	900°C/ 3.5 KW	1150°C/ 4.0 KW
175 x 175 x 415 (7" x 7" x 19")	900°C/ 3.5 KW	1150°C/ 4.5 KW
200 x 200 x 300 (8" x 8" x 12")	900°C/ 4.5 KW	1150°C/ 4.5 KW

100 : HOT AIR OVEN

Characteristics of the Products:

Precise hot Air Drying & Sterilization.

Better Mineral / Glasswool / Blanket Insulation keeps the surface of the instruments from being Burnt

Silent Hot Air Blower, unique Design of Air Circulation provide throughout uniform air movement & improved Temperature distribution

Polish 304 grade S. Steel interior, corrosion resistant long life operation having adjustable shelves to make More space for different height.

Best quality Bi-Metallic Hydraulic capillary Thermostat, full features with Digital Temp. Controller Cum Indicator & Microprocessor Based PID Temp. Controller Cum Indicator having alarm facility (On Request).

Technical Parameters :

Control Panel : With Mains & Load Indicator, Fan Switch & Mains Switch, Temperature Controller

Temperature Range : Ambient to 250°C, Controlled from 50°C - 250°C.

Temperature Stability: 1°C or better, In Microprocessor Based PID Temp. Controller 0.5°C or better.

Housing Material : CRC/Mild Steel with Powder Coated

Optional : Double Colour Gate, Top & Control Panel (on request)

Power Consumption : 230V AC, 1- , 50 Hz Safety Function : Temperature Over Shoot High & Low Temperature Alarm.

Optional: • Outer S. Steel 304 grade body (On customer demand) • RS- 232 Communication Interface. • Front Toughened Glass door for Temp. up to 200°C Working

Duty Cycle : Continuous



Model	HAO 1.01	HAO 1.01 (A)	HAO 1.01 (B)	HAO 1.01 (C)	HAO 1.01 (D)	HAO 1.01 (E)	HAO 1.01 (F)
Capacity (Ltrs.)	28	45	95	125	224	336	252
Interior (mm)	300x300x300	300x350x350	450x450x450	450x450x605	605x605x605	605x605x900	605x450x900
Wattage "W"	1.0 KW	1.0 KW	1.5 KW	2.0 KW	2.5 KW	3.0 KW	2.5 KW
Shelves	1/2	1/2	2	2	2	3	3

101 : BOROSILICATE GLASS WATER DISTILLATION UNIT

Introduction: Single Stage, Complete with metal stand & electrical fittings, all glass Borosilicate.

Specifications: Output	4 liters/hr, single distilled
pH	5.0 - 6.5
Conductivity, $\mu\text{Scm-1}$	3.0 - 4.0
Resistivity, M -cm	0.25 - 0.3
Temperature	25 - 35°C
Pyrogen content *	Pyrogen free
Water supply	1 liter/min, 3 - 100psi, (20-700kPa)
Electricity supply	220 or 240V, 50-60Hz, 1- \emptyset
Power requirement	3kW



102 : HIGH PRECISION DIGITAL BALANCE

Standard Features:

- Auto Calibration with External Weight
- Easy to read LED / LCD Display
- Multifunction Weighing Units
- Auto Zero tracking, Low Battery Indicator
- In built rechargeable battery for continues use
- Overload Protection Design
- S. S. Weighing Pan, Level indicator, Adjustable Fit
- High Resolution, Quick Weighing, Accurate Result
- Automatic Switch Off Option
- RS 232 Interface Available (OPTIONAL).

PRECISION DIGITAL BALANCE:

- Capacity: 300 gm, Accuracy: 0.01 gm
- Capacity: 600 gm, Accuracy: 0.01 gm
- Capacity: 1000 gm, Accuracy: 0.01 gm
- Capacity: 2000gm, Accuracy: 0.01gm
- Capacity: 3000gm, Accuracy: 0.01gm
- Capacity: 3000gm, Accuracy: 0.1gm
- Capacity: 6000gm, Accuracy: 0.1gm

HIGH PRECISION DIGITAL BALANCE:

- Capacity: 100 gm, Accuracy: 0.001 gm
- Capacity: 200 gm, Accuracy: 0.001 gm
- Capacity: 300 gm, Accuracy: 0.001 gm
- Capacity: 220 gm, Accuracy: 0.1mg

NOTE: Also Available in other ranges.



103 : BOD INCUBATOR ECO-FRIENDLY

Introduction:

Refrigerated Insulation & Freezing in one unit.
Better mineral & Puf Insulated to keep the surface Temp. of body comfortable & avoid Cooling loss.

Polish 304 grade S. S. interior having adjustable shelves .

Safety Controller are provide with the Digital Temperature Controller Cum Indicator Full features with Digital Temp. Controller Cum Indicator & Microprocessor Based PID Temperature Controller Cum Indicator with Voltmeter (Optional : Digital Voltmeter) Choose among the model with window front glass door or inner Perspex / Acrylic sheet full view door to observe the Test Process inside the incubator as desired while keep Temp. uninterrupted.

Fitted with 2 Nos. Fan (One for Cooling & One for Heating inside the chamber)

Technical Parameters :

Temperature Range : 5°C - 50°C, **Temperature Stability :** 0.5°C Or Better
Housing Material : CRC / Mild Steel duly power Coated, **Optional :** Double Color Gate, Top & Grill.

Power Consumption : 220/ 230V AC supply 10% 50Hz.

Safety Function : Safety Controller for Safety of Digital Temp. Controller cum Indicator & Cooling Compressor

Optional : RS 232 Communication Interface

Compressor : Kirloskar/ Tecumseh Model as per size requirement, **Refrigerant :** R 134

Duty Cycle : Continuous, **Interior :** Illumination provide inside the chamber

Optional : • Illumination of 3 Fluorescent tube, • 2Ft. for 4, 6, 10, 12 Cuft. BOD, • 24 Hrs. Cyclic Manual Timer • Voltage Stabilizer, Capacity as per size / Cap. Requirement



Model	BOD 1.12	BOD 1.12 A	BOD 1.12 B	BOD 1.12 C
Capacity (Ltrs.)	112	171	280	336
Interior (mm)	455 x 610 x 410 4 Cuft.	505 x 830 x 415 6 Cuft.	570 x 875 x 550 10 Cuft.	900 x 650 x 550 12 Cuft.
Heater Wattage "W"	250 W	250 W	250 W	500 W
Shelves	2	3	3	3

104 : JAR TEST APPARATUS (FLOCCULATOR)

Features:

Designed for Floc formation Test in water treatment plant.
 Uniform Stirring of up to 6 samples simultaneously
 Variable speed 20-100 RPM
 Heavy duty 1/20HP motor with gear train mounted on a mild steel housing
 Supported by four rods on a bench.
 Stainless steel stirring paddlers with Adjustable height.
 Locking collars on stirring rods permit adjustment height of paddle height.
 Spacing of 6" (150mm) between rod permit use up to 1000ml Beaker.

Technical Parameters :

Housing Material : CRC/ MS sheet duly powder coated

Power Consumption : 220/230V AC supply 50Hz Single Phase

Motor : 1/20HP motor good quality

Optional : Digital RPM meter/ Timer/ DC-Drive for low RPM (On Request)

Illumination : By Tube Lights (With Chock + Stirrer) Duly covered by Perspex sheet having control switch on the Equipment



Model	UTS 1.19	UTS 1.19 A	UTS 1.19 B	UTS 1.19 C	UTS 1.19 D
Capacity	1 Liter (2 Stirrer)	1 Liter (4 Stirrer)	2 Liter (2 Stirrer)	2 Liter (4 Stirrer)	2 Liter (6 Stirrer)

105 : C.O.D DIGESTION APPARATUS

Introduction: DIGITAL COD DIGESTOR is suitable for COD method for monitoring wastewater influent and effluent, industrial process water, and more. This instrument is used by Pollution Control Labs. Outer cabinet made of mild steel duly coated. Double wall construction with insulation for minimum heat losses increases the efficiency of the system. Aluminum Block with holes (Dimension 40mm Dia x 80mm Depth) is used to hold 6 or 15 nos. COD tubes. Aluminum Block is heated to maintain temperature up to 150°C. Solid state Digital Temperature Controller, appropriate heater & insulation selection assure uniformity in all the samples. Selectable timer up to 120min. With alarm is provided to set the digestion period (Refluxing). After digestion, analyze the sample with either colorimetric or titrimetric method. Supplied with Glassware.

Specifications:

Temp. Range : Above ambient to 150°C or higher

Resolution : 0.1°C

Display : Digital 12mm Red LED

Control : Digital Electronic Temp. Controller

Heater Rating : 750 Watts.

Sensor : PT-100

Timer : Selectable 15, 30, 45, 60, 90 or 120 min with alarm.

Hole Size : 40mm Dia x 80mm Depth

Glass Tube : 38mm dia, 15 nos (5x3 rows) Or 38mm dia, 6 nos. (3X2 rows)

Sample Volume: 20ml. Each.



106 : LABORATORY HOT PLATE

Technical Parameters :

* **Control Panel:** Energy Regulator, Temp. Indicator & Load Indicator

* **Housing Material:** CRC / MS Sheet duly Powder Coated

* **Optional:** All S. Steel on request, thermostat in place of ER

* **Duty Cycle:** Continuous

* **Power Consumption :** 220/230V AC Supply 50Hz Single Phase

HOT PLATE SIZE AVAILABLE & RATING :

* 7.5" diameter 10"x12"x6" (250 x 300 x 150 mm) : 1.5 kW

* 16"x10"x6" (400 x 250 x 150 mm) : 1.5 kW

* 18"x12"x6" (450 x 300 x 150 mm) : 1.5 kW

* 18"x24"x6" (450 x 600 x 150 mm) : 1.5 kW

NOTE:

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107 : RESPIRABLE DUST SAMPLER / HIGH VOLUME SAMPLER

Introduction: This instrument collects the total suspended dust present in the ambient air and fractionates it in two portions viz. Respirable and Coarser portions, using a cyclonic separation technology developed at NEERI Nagpur. The Cyclone is designed to provide a sharper cut-off, as close to 10 microns as practicable. The Respirable fraction is collected over the filter paper & coarser portion is collected in the cup under the cyclone. NEERI has licensed the technology of these samplers to Envirotech and at present no sampler with this technology is available in India and hence it is our proprietary item. Each & Every RDS produced by us carries the CSIR/NEERI technology emblem.

In this sampler, flow is measured across a critical orifice and directly in m³/minute. It's flow metering system is calibrated against calibration setups traceable to National standards. Each and every instrument is supplied with a Calibration certificate.

IT uses a brushless continuous rated indigenous induction motor driven blower. The brushless blower of this instruments does not create EMI interference, has low noise and significantly low maintenance.



Specifications:

- * **Flow Rate:** 0.9 – 1.4 m³ /min free flow
- * **Particle Size:** Particles of 10 microns & below collected on Filter Paper holder. SPM bigger than 10 microns collected in a separate sampling bottle under the cyclone.
- * **Sampling Time:** 28 hours (maximum)
- * **Sampling Time Record:** 0 to 9999.99 hrs. recorded on a Time Totalizer.
- * **Automatic Sampling:** 24 hrs programmable timer to automatically shut off the system after pre set time interval.
- * **Stabilizer:** Voltage stabilizer provided to compensate voltage fluctuation
- * **Power Requirement:** Nominal 220 V, Single Phase, 50Hz AC mains supply.

Features :

- * Brushless blower reduces equipment downtime and maintenance effort.
- * Significantly reduced Noise.
- * Electromagnetic Interference (EMI) to TVs totally eliminated.
- * Provision of light for flow and time reading during night.
- * Toolbox within the instrument.
- * Lockable casters for field convenience, * Lockable Top cover and Gaseous attachment.
- * Improved cabinet design which is more sturdy and durable with SS hardware.

NOTE: Also Available Following Samplers:

- * FINE PARTICULATE SAMPLER.
- * LOW FLOW VOC SAMPLER.
- * GASEOUS SAMPLING ATTACHMENT.

108 : HUMIDITY / STABILITY TEST CHAMBER

Specifications:

- * Temperature Range : Ambient to 45 °C, * Temperature Stability : ±1°C
- * Housing Material : CRC / Mild Steel Sheet duly Powder Coated
- * Power Consumption : 230V, AC ± 10% 50Hz Single Phase
- * Safety Function : Water Level & Low water level cut off alarm (On customer request)
- * Optional : RS 232 Communication Interface
- * Duty Cycle : Continuous, * Interior : S.S. 304 Polished Sheet
- * Humidity Range: Ambient to 95% ±3% (For Routine Model)
- * Temp. Range : 10 - 50°C (For Cooling Refrigerated Model)
- * Humidity Range : 55 - 92% ±3% (For Cooling Refrigerated Model)
- * Compressor : Kirloskar/ Tecumseh As per model requirement (For Cooling below Ambient)
- * Voltage Stabilizer : Required for Cooling (Refrigerated Model as per size/ model)
- * Refrigerant : R 134/22 (For Cooling Model)
- * Optional : Digital Timer & Wet & Dry Thermometer for Calibration.

Model	Heating/ Cooling	Heating/ Cooling	Heating/ Cooling	Heating/ Cooling
Capacity (Ltrs.)	95	147	225	335
Interior (mm)	450 x 450 x 450	450 x 450 x 700	605 x 605 x 605	605 x 605 x 900
Heater Wattage "W" (Dry)	250 W	250 W	250 W	250 W
Heater Immersion Wattage (Wet)	1 K W	1 K W	1.5 K W	1.5 K W
Shelves	2	2	2	3

* Dimensions are expressed in (Width x Depth x Height)



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Digital pH Meter



Digital Conductivity Meter



Digital Dissolved Oxygen Meter



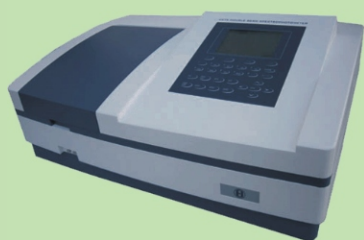
Digital Turbidity / Nephelo Meter



Digital Colony Counter



Digital Water & Soil Analysis Kit



Double Beam UV-VIS Spectrophotometer



Digital UV/VIS Spectrophotometer



Digital Spectrophotometer



Digital Photo Colorimeter



Digital Flame Photometer



Digital Auto KF Titrimer



Autoclave



Automatic Self Recording Rain Gauge



Glass Filtration Apparatus

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OUR OTHER PRODUCT RANGE



Mechanical Engineering Department

- ☞ Fluid Mechanics Lab
- ☞ Hydraulic Machinery
- ☞ Thermal Engineering Lab
- ☞ Refrigeration & Air Conditioning Lab
- ☞ Heat Transfer Lab
- ☞ Theory Of Machine Lab
- ☞ Control Engineering Lab
- ☞ Instrumentation Lab
- ☞ Mechatronics Lab
- ☞ Vibration Lab
- ☞ Metallurgy Lab
- ☞ Metrology & Quality Control
- ☞ Oil, Petroleum & Paint Testing
- ☞ Manufacturing Process Lab



Automobile Engineering Department:

- ☞ IC Engine Test Rig Lab
- ☞ Auto Electrical & Electronics System
- ☞ Automobile Engine Systems
- ☞ Automobile Transmission Systems
- ☞ Autotronics
- ☞ Automobile Air Conditioning
- ☞ Automobile Systems and Body Engineering
- ☞ Vehicle Layout and Transmission System



Electrical Engineering Department:

- ☞ Electrical AC Machine Lab
- ☞ DC Machine & Transformer Lab
- ☞ High Voltage Lab
- ☞ Test & Measuring Instruments

Electronics & Telecom. Engineering

- ☞ Analog Electronic Lab
- ☞ Digital Electronic Lab
- ☞ Microprocessor & Micro-controller Lab
- ☞ Analog Communication LAB
- ☞ Digital Communication LAB
- ☞ Fiber Optic and Laser Communication Lab
- ☞ Audio & Video Engineering Lab
- ☞ Consumer Electronics Lab
- ☞ Antennas, Microwaves and Radar Lab
- ☞ Computer Hardware Lab
- ☞ Computer Communication Network Lab
- ☞ Mobile Communication
- ☞ Wireless Communication and Networks Lab
- ☞ Satellite Communication and Network Lab
- ☞ Power Electronics Lab
- ☞ Instrumentation and Measurements Lab
- ☞ Automobile and Mechatronics Lab
- ☞ Bio-Medical Instrumentation Lab
- ☞ Robotics Lab
- ☞ Control Theory Lab



Technical Training Academy or Courses

- ☞ PLC , SCADA, HMI Automation Training
- ☞ Embedded System Training
- ☞ Robotics Automation Training

PUNE TEST HOUSE*

- ☞ Construction Material Testing Lab
- ☞ * Up-coming Project





X E E P L
Enriching Technical Education

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we are one of the pioneers in the field of Manufacturing of various Civil, Mechanical, Automobile, Electronics, Electrical, Instrumentation, Engineering equipment. We take a great pleasure to introduce ourselves as an organization in Manufacturing of sophisticated technical training test rigs/ Demonstration kits to various Diploma & Degree Engineering colleges as well as research Institutes all over India.
Also we do setup Civil material testing lab.

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