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Kiran Electronics

AN ISO 9001-2015 CERTIFIED ORGANISATION

**IOT (INTERNET OF THINGS)
PLATING / COATING
THICKNESS MEASUREMENT SYSTEM
& ELECTROPLATING EQUIPMENT**



PLATING THICKNESS TESTER

Model : Advance Micro Test

Micro Test is versatile & sophisticated Thickness Tester which measures almost all electroplated metals on ferrous, non-ferrous & non-metallic substrates. Provides USB connectivity for PC software where user can run test and store/print reports with their convenience.

Product Features:

- ◆ 32 Bit Arm Based Technology
- ◆ VB Net Base Software For Window O.S. (Operating Systems)
- ◆ Micro Controller Based
- ◆ 21 Stores Plating Base Combinations
- ◆ Controller With USB Connection Of Data Transfer To PC
- ◆ Multiple Gasket Feature
- ◆ Self Calibration Mode
- ◆ Offline Graph Plotting & Analysis Of Analog Data

PLATING	BASE
Nickel	Aluminum, Brass, Copper, Chromium, steel
Chromium	Nickel, Brass, Cadmium, Copper, Nickel, Steel, SS
Silver	Copper, Brass, Nickel, Tin, Aluminum
Tin	Brass, Copper, Nickel, Steel
Zinc	Steel, Aluminum, Brass, Copper, Nickel
Copper	Aluminum, Steel, Nickel, Non-Metals
Lead	Aluminum, Brass, Copper, Steel
Gold	Brass, Copper, Nickel
Electro less-Nickel	Steel, Aluminum



Specifications:	
Principle	Coulometric
Type	Destructive
Measuring Range	(TEST Duration 40 Min Max.At A Time)
Resolution	0.1 Microns 0.01 Microns For Thin Plating
Accuracy	± 2 % Of Reading
Measuring Surface	Minimum 3mm X 3mm Flat Surface & For Round 3 Mm Diameter
Power Supply	230V / 50Hz
(Stabilizer V-Guard)	90 To 270v Is Required To Maintain The Voltage 230v
Dimensions	240mm X 210mm X 110mm
Weight Main Unit	2.5 kg
Accessories Weight	2 kg

PLATING THICKNESS TESTER

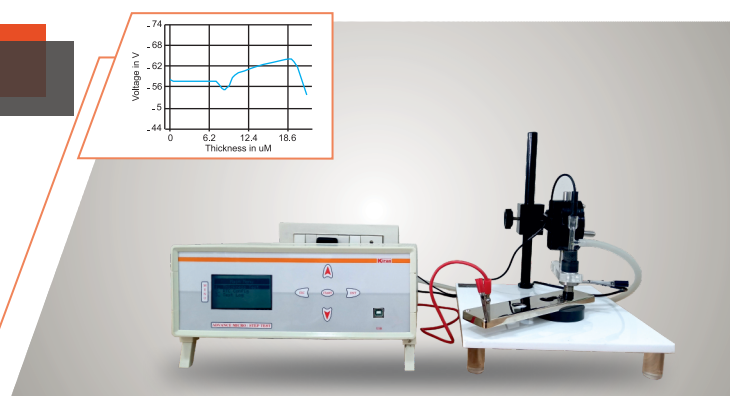
Model : ADVANCE STEP TEST

Adv Step Test Is Versatile & Sophisticated Thickness Tester Which Measure Duplex & Triplex Nickel On Ferrous & Non-ferrous Substrates. Provide USB Connectivity For PC Software Where User Can Run Test & Store/Print Reports With There Convenience.

Product Features:

- ◆ 32 Bit Arm Based Technology
- ◆ Micro Controller Based
- ◆ Offline Graph Plotting & Analysis Of Analog Data
- ◆ VB Net Base Software For Window O.S. (Operating Systems)
- ◆ Controller With USB Connection Of Data Transfer To PC
- ◆ Test Result Storage & PDF Format Report Generation

PLATING	BASE
Duplex Nickel	Steel, Copper
Triplex Nickel	Steel,Copper



Specifications:	
Principle	Coulometric
Type	Destructive
Measuring Range	(TEST Duration 40 Min Max. At A Time)
Measuring Step	Offline Graph Plotting & Analysis Of Analog Data
Accuracy	± 5 % Of Reading
Accuracy	± 10 % Of Volt
Measuring Surface	5mm X 5mm Flat Surface & For Round 6 mm Diameter
Power Supply	230V / 50Hz
(Stabilizer V-Guard)	90 To 270v Is Required To Maintain The Voltage 230v
Dimensions	240mm X 210mm X 110mm
Weight Main Unite	2.5 kg
Accessories Weight	2 kg

PLATING THICKNESS TESTER



Model : ADVANCE wire cell

Adv Wire Cell Test Is Versatile & Sophisticated Thickness Tester Which Measure Almost All Electroplated Metals On Ferrous, Non-ferrous & Non-metallic Substrates. Provide USB Connectivity For PC Software Where User Can Run Test & Store/Print Reports With Their Convenience.

Product Features:

- ◆ 32 Bit Arm Based Technology
- ◆ VB Net Base Software For Window O.S. (Operating Systems)
- ◆ Micro Controller Based
- ◆ Controller With USB Connection Of Data Transfer To PC
- ◆ Test Result Storage & PDF Format Report Generation
- ◆ Analysis Of Analog Data
- ◆ Refer The ISO 2177



Specifications:	
Principle	Coulometric
Type	Destructive
Measuring Range	(TEST Duration 40 Min Max. At A Time)
Measuring Wire Diameter	0.01mm up to 5 mm
Accuracy	± 10 % Of Reading
Power Supply	230V / 50Hz
(Stabilizer V-Guard)	90 To 270v Is Required To Maintain The Voltage 230v
Dimensions	240mm X 210mm X 110mm
Weight Main Unit	2.5 kg
Accessories Weight	2.300 Kg

Wire Cell Assembly



PLATING THICKNESS TESTER

Model : Micro-Test

Product Features:

- ◆ Micro Controller Based
- ◆ 21 Stored Plating / Base Combinations
- ◆ Printout Output
- ◆ Interface for RS 232 for Connection to a PC



PLATING	BASE
Nickel	Aluminum, Brass, Copper, Chromium, steel
Chromium	Nickel, Brass, Cadmium, Copper, Nickel, Steel, SS
Silver	Copper, Brass, Nickel, Tin, Aluminum
Tin	Brass, Copper, Nickel, Steel
Zinc	Steel, Aluminum, Brass, Copper, Nickel
Copper	Aluminum, Steel, Nickel, Non-Metals
Lead	Aluminum, Brass, Copper, Steel
Gold	Brass, Copper, Nickel
Electro less-Nickel	Steel, Aluminum

Specifications:	
Principle	Coulometric
Type	Destructive
Measuring Range	00.1 to 999.9 microns
Resolution	0.1micron
Accuracy	±2% of reading
Measuring Surface	3mm x 3mm flat surface for round 3mm dia
Power Supply	230V / 50Hz
Dimensions	310mm x 290mm x 80mm
Weight Main Unit	2.5 Kg.
Accessories Weight	2 kg

PLATING THICKNESS TESTER



Model-PTT-ECO (Destructive Type)

Is a compact and sophisticated thickness tester for the measurement of plating thickness on Ferrous, Non-Ferrous & Non-Metal substrates. It fulfils a long standing need on the market for reliable, accurate & Economical Plating Thickness Tester for all type of Plating. There is no separate cost for each PBC Plug.

PTT ECO can measure coating thickness of following Plating / Base combination.

PLATING	BASE
Nickel	Aluminum, Brass, Copper, Chromium, steel
Chromium	Nickel, Brass, Cadmium, Copper, Nickel, Steel, SS
Silver	Copper, Brass, Nickel, Tin, Aluminum
Tin	Brass, Copper, Nickel, Steel
Zinc	Steel, Aluminum, Brass, Copper, Nickel
Copper	Aluminum, Steel, Nickel, Non-Metals
Lead	Aluminum, Brass, Copper, Steel
Gold	Brass, Copper, Nickel
Electro less-Nickel	Steel, Aluminum



Specifications:	
Principle	Coulometric
Type	Destructive
Measuring Range	00.1 to 99.9 microns
Resolution	0.1micron
Accuracy	±2% of reading
Measuring Surface	3mm x 3mm flat surface for round 3mm dia.
Power Supply	230V / 50Hz
Dimensions	240mm x 210mm x 110mm
Weight Main Unit	3.5 kg
Accessories Weight	2 kg

PLATING THICKNESS TESTER

Measuring Surface:	
For standard probe	6mm x 6mm flat surface for round 10 mm OD
Micro-Probe	2mm x 2mm & round 3mm OD
Power Supply	230V / 50Hz.
Dimensions	240mm x 210mm x 110mm
Weight Main unit	2.5 Kg.
Accessories weight	2 Kg.
Extra Accessories	Micro Probe with stand assembly for small parts

Specifications:	
Principle	Eddy Current
Type	Non- Destructive
Measuring Range	00.1 to 30.0 microns
Resolution	0.1micron
Accuracy	±2% of reading

Model: ZINC TEST STANDARD



Model: ZINC TEST MICRO Probe



MICRON GAUGE

Portable Non-Destructive Coating Thickness Testers
For Powder Coating, Anodizing, Paint, Zinc Plating.

Model: F		Model: NF	
Principle	Electromagnetic	Principle	Eddy current
Application	Powder Coating, Paint, Teflon, Zinc, Tin, Copper, Hard-Chrome, Cadmium, E-Nickel & galvanize on MS Base	Application	Powder Coating, Paint, Teflon, Anodizing on Alum, Copper, Brass & SS.
Range	0-1000um	Range	0-500um
Resolution	1 um	Resolution	2 um
Accuracy	± 1 um	Accuracy	± 1 um
Supply	9V	Supply	9V
Weight	300 gm	Weight	300 gm

FNF COMBINE THE FULL CAPABILITIES OF BOTH THE F & NF MODELS



ULTRASONIC THICKNESS GAUGE

Specifications:	
Display	4 digits, 10mm LCD
Range	1.2 to 200mm.
Resolution	0.1mm / 0.001inch
Accuracy	± 0.5 %
Sound Velocity	1000 ~ 9000m/s
Power Supply	4 x 1.5V AAA battery
Operating Condition	Temp.0 - 50° C
Humidity	< 90% RH
Size	120mm x 62mm x 30mm
Weight	260 gm

Application:

Used for measuring thickness and corrosion of Pressure Vessels, Chemical Equipment, Boilers, Oil Storage, Tanks, etc., in industries of Petroleum, Ship building, Power Station, Machine Manufacturing etc...



TABLE TOP CONDUCTIVITY METER

Digital Conductivity meter is precise and rugged instrument designed for most accurate measurement of conductance. Generally the measurement of conductance is not any harder than measuring resistance in fact conductance is the inverse of the resistance. However, most ohm meters operate from direct voltage and current if were used in a liquid it would invariably give raise some sort of electrolysis that would distort the measurement. To counter the electrolysis the meter must operate with on AC voltage or current of sufficient high frequency.



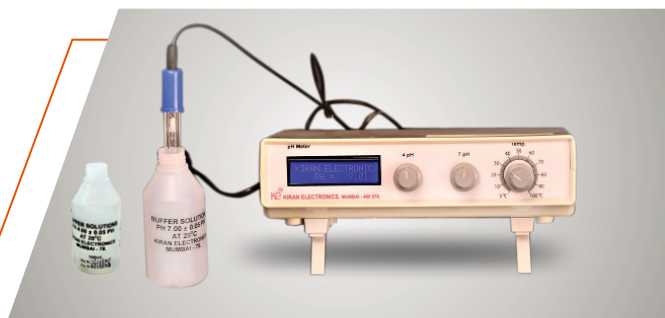
TABLE TOP pH METER

Application:

- ◆ Purification of drinking water
- ◆ Manufacturing of sugar, pharmaceuticals & cosmetics
- ◆ Effluent treatment plants
- ◆ Dyes and chemicals
- ◆ Biotechnology
- ◆ Electroplating

Technical Specification pH Meter:

Range	0 to 14 pH
Accuracy	± 0.05 pH
Probe	Combination pH electrode
Display	LCD
Power Requirement	230VAC ± 10%, 50Hz.
Unit Dimensions	16cms x 23cms x 8cms
Weight	Approx.1 kg



ON LINE pH INDICATOR

On line pH Indicator specially designed for various process control industry.

Application:

- ◆ Purification of drinking water
- ◆ Manufacturing of sugar, pharmaceuticals & cosmetics
- ◆ Effluent treatment plants
- ◆ Dyes and chemicals
- ◆ Biotechnology
- ◆ Electroplating

Product Features:

- ◆ Micro Controller Based
- ◆ Auto Temp. Sensing
- ◆ Buzzer for Low/High pH control
- ◆ 12 V DC output for auto dosing pump
- ◆ Flame proof
- ◆ Electrode Cable length 3/5 Meter



Technical Specification pH Meter:

Range	0 to 14 pH
Accuracy	± 0.05 pH
Probe	Combination pH electrode
Display	LCD
Power Requirement	230VAC ± 10%, 50Hz.
Unit Dimensions	210 x 245 x 210 mm
Weight	Approx. 2 kg

ON LINE pH METER PLC AUTO DOZING SYSTEMS

On line Ph Indicator Specially Designed for Various Process Controlled Industries with Auto Dosing systems

Specification:

Range	0 to 14 pH
Accuracy	± 0.1 pH
Probe	Combination pH electrode
Power Requirement	230VAC, 50Hz.
Unit Dimensions	210 x 245 x 110mm
Weight	Approx.2 kg

Product Features:

- ◆ PLC Based Controller ◆ pH HIGH / LOW Indication with Buzzer
- ◆ Auto Temp. Sensing ◆ 4 to 20 ma Output for PLC or Programing
- ◆ 230 V High Level pH Output ◆ 230 V Low Level pH Output
- ◆ High or Low Level Maintend Time Interval Based.
(ex. Relly Off Condition 01.00 Min.rely On Condition 00.10 Sec)



POCKET - TYPE pH METER

Product Features:

- ◆ Fast response combined with High Accuracy
- ◆ Impact Resistant ABS Case. Splash proof Membrane Keypad
- ◆ Electrode can be extended up to 80mm
- ◆ Manual Calibration via Screw Trim Pot
- ◆ Pocket clip Moulded on the rear of the case

Specifications:

Measuring Range	0 to 14 pH
Accuracy	± 0.1
Resolution	0.1
Weight	75 gm
Sound Velocity	1000 ~ 9000m/s
Power	2 x 1.5 V AAA batteries
Dimensions	158 x 40 x 34mm.



5 IN 1 ON LINE pH METER

Features:

- ◆ Machine Interface up to 5 pH Probe
- ◆ pH Electrode probe wire length size 3mtr.
- ◆ 2 inch 7 seg display
- ◆ ARM based technology
- ◆ Potential meter to set Temperature
- ◆ Auto Temp. Compensation for pH
- ◆ RS 485 Communication & Data logging individually or for all channels
- ◆ PC Application to provide calibration each pH sensor
- ◆ Logging reports in excel format
- ◆ Low / High pH Indication & Low / High Alarm set point
- ◆ Each Channel Enable / Disable option

Extra Features (optional) with Extra Charges:

- ◆ 230V Buzzer for Low / High pH
- ◆ 4 to 20 MA output for each pH probe sensor
- ◆ pH Electrode probe wire length size maximum up to 30 mtr.
- ◆ RS 485 wire as per requirement.



Specifications:

Measuring Range	0 to 14 pH
Accuracy	± 0.02 pH
Probe	Combination pH electrode
Display	7 Segment
Power Requirement	230V AC
Unit Dimensions	L:470 x W:200 x H:212mm (Wall Mount)
Communication Box	195 x 180 x 70mm (Table Top)
Weight Approx	2.5kg

TRAVLENT CONTROLLER

- ◆ Travlent Controller Specially Designed for
- ◆ Various Process Controlled Industries with Auto Dozing systems

SPECIFICATION

RANGE	0 TO 14
ACCURACY	± 0.1 PH
PROBE	COMBINATION PH ELECTRODE
TEMP.	0 - 90 DIGREE
POWER REQUIRMENT	230V AC 50 HZ
UNIT DIMENSION	210 X 245 X 110MM
WAIGHT	APPROX 3 KG

SPECIAL FEATURE

- PLC based Controller ➤ PH High / Low Indication with Buzzer
- Auto Temp. sensing ➤ 4 TO 20 MA output for PLC OR Programing
- 230 V high level PH output ➤ 230 V low level PH output ➤ Digital Temp Controller 2 KW One Output
- High or low level maintend time interval based. (Ex. relly off condition 01.00 Min. Relly on Condition 00.10 Sec.)
- Digital Timer only for Minute Setup. With Buzzer cum Flasher



SALT SPRAY TEST CHAMBER (CONVENTIONAL STANDARD)

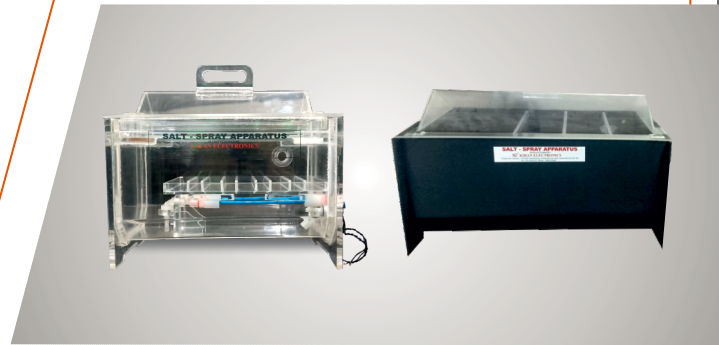


- ◆ The apparatus for testing consists of a closed acrylic testing chamber, where a salted solution (mainly, a solution of sodium chloride) is sprayed by means of a nozzle. This produces a corroding environment in the chamber and thus, parts in it are attacked under this severe corroding atmosphere.

Specifications:

Chamber Size:	1) (L) 910mm x (W) 510mm x (H) 310mm 2) (L) 450mm x (W) 250mm x (H) 250mm
Chamber Construction Material:	Acrylic & PVC
Hood in acrylic	
Control Panel (Temp. Indicator/Controller, Time totalizer)	
Power Requirement :	230VAC \pm 10%, 50Hz.
Extra Accessories :	Air Compressor

Acrylic



DIGITAL ELECTRONIC TIMER WITH FLASHER / BUZZER

- ◆ Digital Electronic Timer with Flasher/Buzzer with industrial
- ◆ START/STOP Switches.
- ◆ Auto cutoff provision, Selection mode for Seconds/Mints/Hrs.
- ◆ Supply: 230V AC.



TEMPERATURE INDICATOR & CONTROLLER

- ◆ ON-OFF / T. P. Temperature Controller, Single Set Point
- ◆ Input : RTD
- ◆ Output 1 : Relay 10 A/230 VAC
- ◆ Supply : 85 to 264V AC.



SALT SPRAY APPARATUS (ASTM B-117 STANDARD)

The apparatus for testing consists of a closed acrylic testing chamber, This produces a corroding environment in the chamber and thus, parts in it are attacked under this severe corroding atmosphere.



Technical Data	
Name of The Chamber	: Salt Spray Chamber
Reference Standard	: ATM B117, ISO 9227, JISZ 2371, IEC 60068-2-52
Performance	: To Carry Out Test as Per ASTM B-117
Power supply	: 230volt AC,50HZ, Single Phase 10 Amp
Made of	: PVC (Thickness 8 mm) Corrosion Resistant, Anti-Ageing, High Strength Material
Hood	: In Acrylic Angle 120°
Salt Spray Size (Standard)	: 950mm X 700mm X 700mm
Working chamber size	: 900mm X 650mm X 650mm
Volume	: 450 Ltr.
Control Board Display	: 7" LCD With Resistive Touch Screen
Data Logging	: PENDRIVE (80 THOUSAND SAMPLE LOGGING)
Communication	: RS 485 Modbus RTU Protocol
Temperature	: 35°C
Temperature Sensor	: PT-100 (Ss316-L)
Temperature Tolerance	: ± 2°C
Temperature Resolution	: 0.1°C
Humidity Range	: 97% ± 3Rh
Humidity Tolerance	: ± 3 Rh
Temperature Control	: By Microprocessor Based Temp.Indicator & Controller
Salt Solution Tank	: 50 Ltr. (PVC)
Atomizer Tower	: 2.5 Ltr. (PVC)
Spray Nozzle	: Acrylic
Air Tube to Spray Nozzle	: Pu 8x6
Water Pipe Line	: PVC Braided Pipe
Humidity Tower (Saturator)	: 15 Ltr. (S.S.316-L)
Automatic Water Leveling Sensor.	: Dozing Sensor
Water Circulation Tank	: 25 Ltr. (P.P.)
Heater Element	: 1kw
Salt for Fallout Rate	: 1-2 ml/Hour over 80 sq.cm Horizontal Area (Based in average run of 16 hrs. Uninterrupted test- run)
Brackets for Rods Supporting Specimens	: 35° Angle Slotting
Combination Drain & Exhaust	: PVC Pipe
Test Rack, Well Below Roof Area	: PVC Rod
Fog Collector	: Funnels 8 Cm Dia
Measuring flask	: Plastic Measure
Air Piping	: Made of Nylon or Poly-urethane material
Air Regulator	: Air Regulator to adjust the collection rate

Special Features:

- ◆ Multiple Sample Setup for Individual Testing Time (Ex. A, B, C, D, E,)
- ◆ Digital Air Pressure Indicator
- ◆ Auto Data Logging
- ◆ Time Backup In Case Of Power Failure During Operation, Operation Will Resume from The Point Where it Was Stopped When The Power is Recovered.
- ◆ Multiple Sampling Data Recorder
- ◆ Salt Solution Water Level Indicator
- ◆ Normal Water Level Indicator
- ◆ Buzzer Indication To Observe The Specimen During Salt Spray Running Testing Hours, Which Can Be Set Every 1 Hour To 96 Hours.
- ◆ Auto tap water inlet facility.

SMPS BASED HULL CELL RECTIFIER



The Hull Cell Is A Type of Test Cell Used to Qualitatively Check The Condition of An Electroplating Bath. It Allows for Optimization For Current Density Range, Optimization Of Additive Concentration, And Recognition Of Impurity Effects And Indication Of Macro-Throwing Power Capability. The Hull Cell Replicates The Plating Bath On A Lab Scale. It Is Filled With A Sample Of The Plating Solution, An Appropriate Anode Which Is Connected To A Rectifier The Work" Is Replaced With A Hull

Cell Test Panel That Will Be Plated To Show The "Health" Of The Bath. The Hull Cell Is A Trapezoidal Container That Holds 267 ML Of Solution. This Shape Allows One To Place The Test Panel On An Angle To The Anode. As A Result, The Deposit Is Plated At Different Current Densities Which Can Be Measured With A Hull Cell Ruler. The Solution Volume Allows For A Quantitative Optimization Of Additive Concentration: 1-Gram Addition To 267 ML Is Equivalent To 0.5 Oz/Gal In The Plating Tank.

Kiran Electronics, Designed SMPS Based CVCC Type Rectifiers For Hull Cell Testing Are Which Utilize Filtered Circuits Capable Of Continuously Producing Minimum Ac Ripple. This Filtered Current Output Is Essential For Testing Many Plating Baths. Kiran Rectifiers Are Strongly Recommended For Hull Cell Test Because Result Is Misleading When Single Phase Unfiltered Current Is Used.



Specifications:	
Input Power Supply	230 Volts 50Hz Single Phase
Output	0-12 Volt 0-10 Amp DC
Unit Dimensions	23cms x 24.5cms x 11cms
Weight	Approx.2 kg.

Special Features:

- ◆ SMPS Based
- ◆ Ripple Less than 1%
- ◆ Constant Voltage Constant Current
- ◆ Timer With Buzzer [00:00:00] [hh:mm:ss]
- ◆ Digital Volt /AMP. Meter
- ◆ ABS Body Light Weight
- ◆ Digital Temp Controller
- ◆ LCD Display
- ◆ Temp Indication Lamp
- ◆ Air Agitator with On / Off Switch
- ◆ Acrylic Hull Cell Pot 267 ML With Heater & Sensor

Hull Cell Rectifier



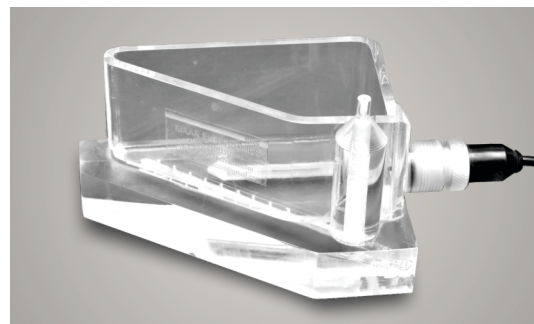
Two in One Rectifier



Acrylic Hull Cell Pot with Thermostat



Acrylic Hull Cell Pot with Heater



Hull Cell Pot Acrylic



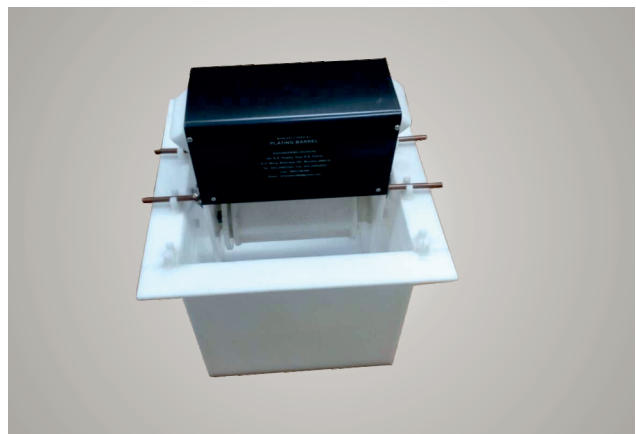
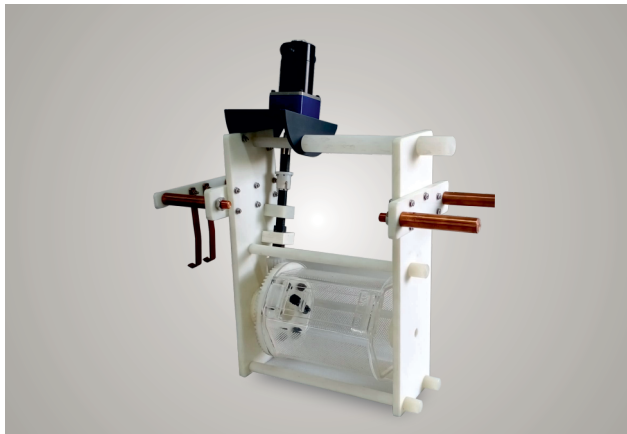
PVC Hull Cell Pot



PORTABLE PLATING BARREL & PORTABLE HANGING BARREL



Material loading capacity: 0.5 to 1.5 kg, 3 to 5 kg & 7 to 10 kg
Power: 12 V/5 Amp. DC Motor
Speed: Adjustable 3 to 12 RPM



Electro Plating Equipment



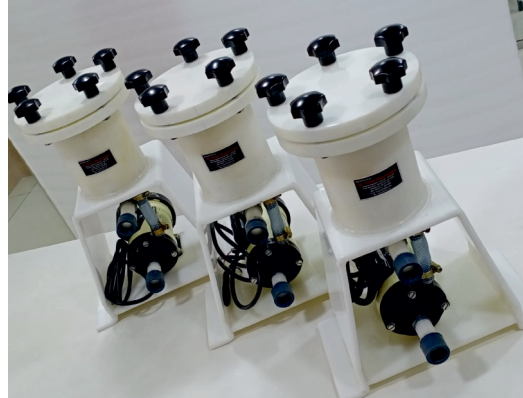
Filter Unit: Cartridge Filter : 5 inch to 20 inch length, 5 microns to 10 microns

Plate Filter : 6 inch to 10 inch, 10 microns Filter Cloth With Filter Paper.

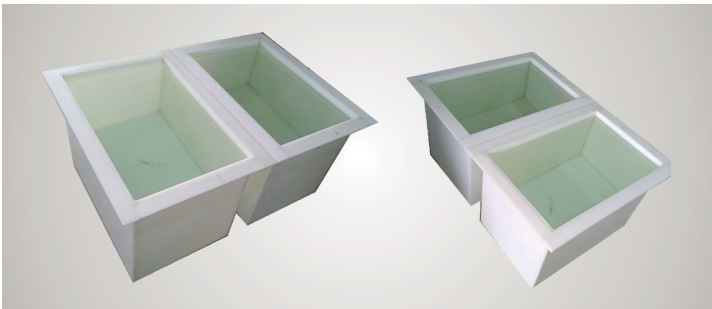
Electroless Nickel Bag : Filter Solution Temp. 90 degrees. (Min - 15 Ltr Per Minute) (Max - 125 Ltr. Per Minute)



Filter Unit



Filter Unit

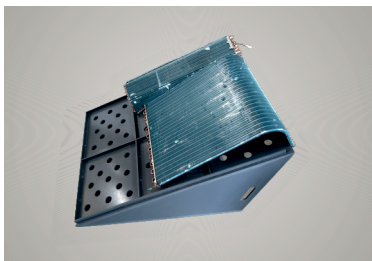


Tank



Digital Temp. Hull Cell Pot

Electro Plating Equipment



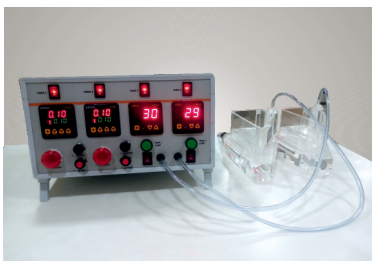
Astm Sample Jig



Hull Cell Pot pp



Hull Cell Pot Pvc



Two in One Hull Cell Kit



Dangler



Plating Plant



Manufactured & Marketed by:

Kiran Electronics

AN ISO 9001-2015 CERTIFIED ORGANISATION

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