



TechRVL

HELPING RESEARCH, DISCOVERY & PROCESSING

FINEST RANGE OF **ELECTROCHEMICAL** DEVICES

Innovating Electrochemistry For Lives...

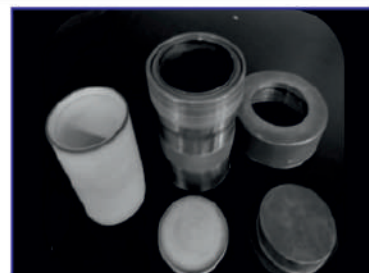




TechRVL

HELPING RESEARCH, DISCOVERY & PROCESSING

RVL Scientific & Engineering Pvt. Ltd.



Our products :

- Potentiostat-Galvanostat-EIS
- Planetary Ball Mill
- Evaporation Materials
- Magnetic Stirrer
- Homogenizer
- Lab Reactor
- Photochemical Reactor
- Glove Box
- Coin Cell Equipments and Consumables
- Conductive Ink Printer
- Centrifuge
- Overhead Stirrer
- Solvent Purification System
- Microscope
- Gas Purification System
- Sputtering Targets
- Liquid Handling Equipments
- Shakers
- Dewar Flask
- Encapsulation Machine

www.rvltech.com

JACOMEX
pure safety

sonoplot **Admiral** **LASC**
Instruments

R LAMY RHEOLOGY
INSTRUMENTS

Thomas
Scientific

MTX
Medetronix Labs Pvt. Ltd.

D Tech
Solutions



HAND-HELD WIRELESS POTENTIOTAT

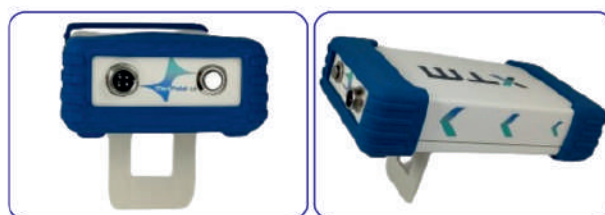
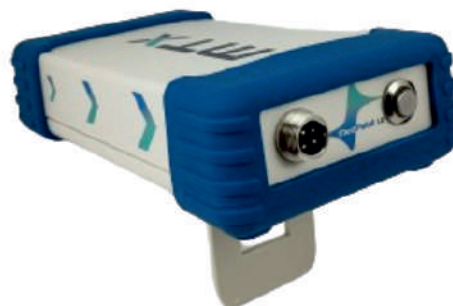
MedPstat 1.0

ELECTROCHEMICAL METHODS:

- Cyclic voltammetry (CV)
- Amperometry (IT)
- Open circuit potentiometry (OCP)
- Differential pulse voltammetry (DPV)
- Square wave voltammetry (SWV)
- Linear sweep voltammetry (LSV)

RANGE:

- Applied Voltage Range: -2.4 to +2.4V
- Applied Voltage Resolution: 501 μ m
- Max Applied Current: 70mA
- Current resolution: 0.05% of current range
- Maximum wireless distance: 20m
- Electrode configuration: 2, 3 & 4 electrode
- Operating system: Window & Mac
- Communication: US-CB and Blue tooth
- Power: DC 12V



STANDARD DUMMY CELL CIRCUIT

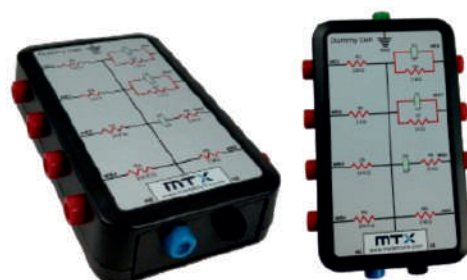
SPECIFICATION :

- Premium Handheld Dummy Cell
- EMI Shielded Cabinet
- Grounding Available
- Electrode terminal type: 2mm Banana Pin
- Component Tolerance: 0.1%

ELECTRODES AVAILABLE:

- Working Electrode (8 terminals)
- Reference Electrode (1 terminal)
- Counter Electrode (1 terminal)
- Ground (1 terminal)

MedCell



HAND HELD POTENTIOSTAT

ECWP100 (Single Channel)

ELECTROCHEMICAL METHODS:

- Cyclic voltammetry (CV)
- Amperometry (IT)
- Open circuit potentiometry (OCP)
- Differential pulse voltammetry (DPV)
- Square wave voltammetry (SWV)
- Linear sweep voltammetry (LSV)

RANGE

- Voltage range scan: +2 ~ -2 (v) OCP
- Voltage range: +1800mV ~ -1800mV
- Current range: 1×10^{-3} ~ 1×10^{-9} (A)
- Current resolution: 0.5% of current range
- Maximum wireless distance: 20m

THE WIRELESS
Smallest Potentiostat



OPERATION SYSTEM

- Window 7 and / or above

COMMUNICATION

- USB 1.1 and 2.4G RF

POWER

- Remoter input: DC 5V, 2A
- Connector input: DC 5V, 0.5A
- Battery life: 1 ~ 6 Hr

**ECWP100Plus (Multi-Channel)
8 CHANNEL WIRELESS SIGNAL RECEIVER**



ELECTROCHEMICAL WORKSTATION (POTENTIOSTAT / GALVANOSTAT)

- Channels Per Unit : 1
- Operating Modes : Pot / Gal / ZRA
- Cell Connections : 2, 3, 4, or 5 electrode
- Input Impedance > 10 Tera-ohm (typical)
- Input Bias Current < 10 pA (typical)
- Scan Rate: 1 $\mu\text{V/s}$ to 10000 V/s

- Applied Potential Range (Controlled Voltage) : $\pm 10\text{ V}$
- Applied Potential Accuracy : 0.1% of setpoint, - 2 mV max
- Applied Potential Resolution: 300 μV
- Measured Potential Accuracy : 0.1% of setpoint, 1 mV max
- Measured Potential Resolution : 300 μV
- Compliance Voltage : $\pm 12\text{ V}$ per channel

- Maximum Current : $\pm 100\text{ mA}$
- Current ranges : 8 ranges (10 nA to 100 mA)
- Applied Current Accuracy : 0.2% of range, 1 nA max
- Applied Current Resolution : 0.003% of range, 300 fA
- Measured Current Accuracy : 0.1% of range, 1 nA max
- Measured Current Resolution : 0.003% of range, 300 fA

- Physical Dimensions : 24 cm x 17 cm x 6 cm
- Channel Cable Length : 90 cm
- Computer Interface : 1 USB per unit
- Power Supply Requirements : 100 – 240 VAC, 50 – 60 Hz

**SQUIDSTAT SOLO
(MAKE: ADMIRAL INSTRUMENTS, USA)
(MAKE: ADMIRAL INSTRUMENTS, USA)**



**THE MOST COST-EFFECTIVE
ELECTROCHEMICAL ANALYZER IN INDIA**

ELECTROCHEMICAL WORKSTATION (POTENTIOSTAT / GALVANOSTAT / IMPEDANCE ANALYZER)

- Channels Per Unit : 1
- Operating Modes : Pot / Gal / ZRA / FRA
- Cell Connections : 2, 3, 4, or 5 electrode
- Input Impedance > 10 Tera-ohm
- Input Bias Current < 1 pA
- Scan Rate: 1 $\mu\text{V/s}$ to 10000 V/s

- Applied Voltage Range : 1 range, $\pm 10\text{ V}$
- Applied Potential Accuracy : 0.1% of setpoint,
- 2 mV max accuracy
- Applied Potential Resolution : 300 μV
- Measured Potential Accuracy : 0.1% of setpoint,
- 1 mV max accuracy
- Measured Potential Resolution : 300 μV
- Compliance Voltage : $\pm 12\text{ V}$ per channel

- Maximum Current : $\pm 1\text{ A}$ per channel
- Current Ranges : 8 ranges (100 nA to 1 A)
- Applied Current Accuracy : 0.2% of range, 1 nA max
- Applied Current Resolution : 0.003% of range, 3 pA max
- Measured Current Accuracy : 0.1% of range, 100 pA max
- Measured Current Resolution : 0.003% of range, 3 pA max

- AC Frequency Range for EIS 10 μHz to 2 MHz
- AC Frequency Accuracy : 0.005% or better
- AC Frequency Resolution : 0.0004%, 3 μHz max
- Potentiostatic Amplitude $\leq 10\%$ of range, 1 V max
- Pot. Amplitude Resolution : 240 μV , 12 bit resolution
- Galvanostatic Amplitude $\leq 10\%$ of range, 100 mA max
- Gal. Amplitude Resolution 0.002% of range, 2.4 pA max

- Physical Dimensions : 24 cm x 17 cm x 6 cm
- Channel Cable Length : 90 cm
- Computer Interface : 1 USB per unit
- Power Supply Requirements : 100 – 240 VAC,
50 – 60 Hz

**SQUIDSTAT PLUS
(MAKE: ADMIRAL INSTRUMENTS, USA)**



**"THE MOST COST-EFFECTIVE ELECTROCHEMICAL
ANALYZER IN INDIA"**

MULTICHANNEL ELECTROCHEMICAL WORKSTATION (POTENTIOSTAT / GALVANOSTAT)

- Channels Per Unit : 4
- Operating Modes : Pot / Gal / ZRA
- Cell Connections : 2, 3, 4, or 5 electrode
- Input Impedance : 10 Tera-ohm (typical)
- Input Bias Current : 10 pA (typical)
- Scan Rate : 1 $\mu\text{V/s}$ to 10000 V/s

- Applied Potential Range (Controlled Voltage) $\pm 10\text{ V}$
- Applied Potential Accuracy : 0.1% of setpoint, 2 mV max
- Applied Potential Resolution : 300 μV
- Measured Potential Accuracy : 0.1% of setpoint, 2 mV max
- Measured Potential Resolution : 300 μV

- Maximum Current : $\pm 250\text{ mA}$ per channel
- Current ranges : 8 ranges (25 nA to 250 mA)
- Applied Current Accuracy : 0.1% of range, 1 nA max
- Applied Current Resolution : 0.003% of range, 750 fA max
- Measured Current Accuracy : 0.1% of range, 1 nA max
- Measured Current Resolution : 0.003% of range, 750 fA max

- Physical Dimensions : 24 cm x 17 cm x 6 cm
- Channel Cable Length : 90 cm
- Computer Interface : 1 USB per unit
- Power Supply Requirements : 100 – 240 VAC, 50 – 60 Hz



SQUIDSTAT PRIME
(MAKE: ADMIRAL INSTRUMENTS, USA)



**“THE MOST COST-EFFECTIVE ELECTROCHEMICAL
ANALYZER IN INDIA”**

POTENTIOSTAT/GALVANOSTAT/EIS

Pt Electrode:

- Platinum Mesh/Tip/Foil/Coil
- High mesh surface area
- Long term stability
- Robust design
- Banana pin connector
- Holder for gripping
- 99.95% Pure Pt
- Customization Available



Working Electrode Holder:

- Available with Screw Type & Crocodile Type
- Copper Rod for Connection
- Teflon body holder



Reference Electrode (Ag/AgCl, SCE, Hg/HgO, Hg/Hg2SO4, Cu/CuSO4, Non Aq Ag/Ag⁺):

- Dual Compartment
- Porous Glass Frit
- Long term stability
- Working temperature range 0°C to 70°C
- Thermally stable

Standard Solution:

- Ag/AgCl (Saturated KCl)
- SCE (Saturated KCl)
- Hg/HgO (1M NaOH)
- Hg/Hg2SO4 (1M H2SO4)
- Cu/CuSO4 (1M CuSO4)
- Non Aq Ag/Ag⁺ (10mM AgNO3, 0.1M TDAB in Acetonitrile)



Disc Type Electrode:

- Glassy Carbon / Gold / Platinum
- Available with 2mm, 3mm, 5mm Dia
- Cylindrical Casing
- Teflon Casing Material
- Mirror Finish Surface



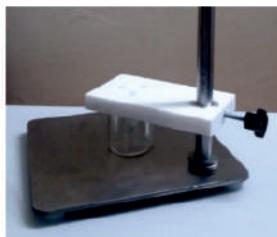
Press Fit Inert Cell:

- Available with 20 & 50 ml
- Screw tight fit
- Perfect to work in inert atmosphere
- Borosil & teflon material
- Hole Size on lid: 5mm & 6mm
- Room temperature functioning



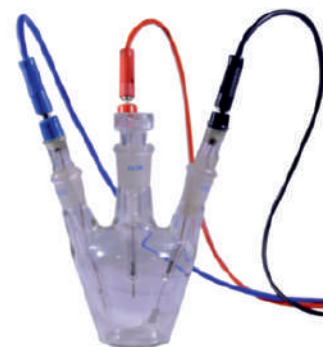
Mini gas tight Cell:

- Available with 10 ml & 20 ml
- Borosil & Teflon material
- Hole Size on lid: 5mm
- Max Temperature: 100°C
- Available with & without Stand



Gas tight cell:

- Available volumes 100ml & 50ml
- Cell Type: Conical
- Neck Type: 4 Neck (3 of B14 & 1 of B19)
- Material: Borosil Glass
- Max Temperature: 100°C



Gas tight thermal jacket cell:

- Cell Type: Conical
- Neck Type: 4 Neck (3 of B14 & 1 of B19)
- Material: Borosil Glass
- Volume: 100 ml
- Max Temperature: 150°C



Round bottom cell setup:

- Cell Type: Round Bottom
- Neck Type: 4 Neck (3 of B14 & 1 of B19)
- Material: Borosil Glass
- Volume: 100 ml
- Max Temperature: 200°C



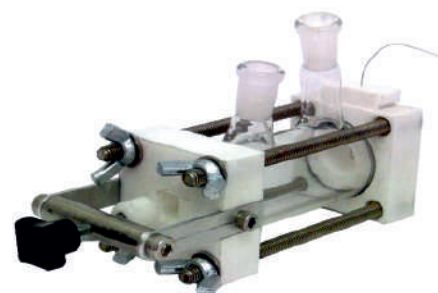
Electrochemical Cell Set-up:

- Combined with salt bridge compartment
- Cell Volume upto 100 ml
- Available with specific salt bridge
- Easy to handle
- Removable / Adjustable holders
- Working electrode connector
- Applicable at moderate temperature range (0 to 100°C)
- Customization Available



Flat Corrosion Cell:

- Available Volume: 50ml & 250 ml
- Counter Electrode 10 mm x 10 mm Pt mesh as
- 10 mm x 10 mm Working Electrode Slot
- Reference Electrode
- With & without luggin capillary for reference electrode
- Max Temperature (80°C)



Banana Connector Cables:

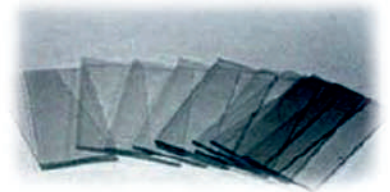
- Highly Flexible & Less Noise
- Current Rating: 5A
- Length 1 meter
- Connector type (3.5mm Banana Pin)
- Available Color: Red, Blue & Black

High Quality Alligator Clip:

- Corrosion Resistant
- Banana Female Connector
- Available Colors: Red & Black
- Optimum for Holding Samples
- Current rating: 15 Amp

ITO Plate:

- Base Material: Glass Slab
- Coated Material: ITO
- Conductivity: 8-12 Ω
- Dimension: 2cm x 1cm
- Max Temperature: 100°C



PHOTOELECTROCHEMICAL CELL:

- Available Volume: 100 ml
- Quartz optical window size: Dia 12mm
- Detachable optical window
- Teflon lid for holding electrodes
- Working electrode holder included



H CELL:

- Two compartment cell
- Each cell volume (50 ml)
- Separator available
- Porous Glass frit separation (Optional)
- Membrane Separation (Optional)
- Teflon lid available for both compartments



OTHER AVAILABLE ACCESSORIES:

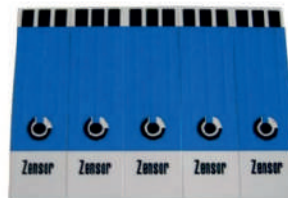
Polishing Kit:

- Contains 1 bottle of 1.0 micron Alpha alumina powder,
- 1 bottle of 0.3-micron Alpha alumina powder,
- 1 big bottle of 0.05-micron Gamma alumina powder,
- 2 plastic plates for polishing pads,
- 5 pieces of 73 mm diameter 1200 grit disks (grey in color), 5 pieces of Carbimet diameter Nylon polishing pads 73 mm (white in color), and 10 pieces of 73 mm diameter Microcloth polishing pads (brown in color)



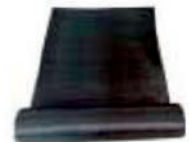
Screen Printed Electrodes:

- Dimensions: 50 x 13 mm (h x w)
- Working electrode: 3 mm diameter disk
- Materials: graphitic carbon powder (working and auxiliary electrodes), Ag/AgCl pellet (reference)



Conducting Carbon Cloth:

- 320um thickness and 320*160mm(L*W)



D520 Nafion Dispersion:

- Alcohol based 1000 EW at 5 wt%

Faraday Cage:

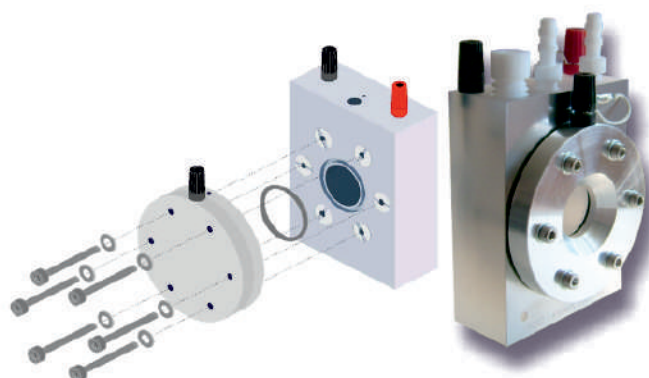
- Frame Material: Aluminum
- Panels: 3.12mm thick Acrylic
- Visibility: 95%
- Side panel fixing method: Tightened by rubber beading inside frame slots
- Number of cable ports with end caps: 2Numbers
- Front door: Hinged or Sliding
- Finish (Frame): Black powder coated



WATER ELECTROLYSIS & GREEN HYDROGEN PRODUCTION ACCESSORIES

PECC Photo-Echem Cell:

- Physical dimensions (W x D x H): 60 x 25 x 80 mm
- Optical window diameter: 20 mm
- Optical window material: BK7 or Quartz
- Sample diameter: max. 20 mm (1)
- Electrolyte volume: 7.9 cm³ (1)
- Light path length in electrolyte: 18 mm (1)
- Solid material: Teflon (PTFE)
- Reference electrode: Ag/AgCl
- Counter electrode: Pt coil
- Working electrode: Solid



Alkaline Electrolyzer (1 Cell - 20 Cell)

- Size: 100 x 100 x 27 mm
- Material: FRP, Engineering plastic
- Number of Cells: 1
- Membrane: Proprietary porous polymer
- Electrolyzer Current Range: 6 - 10A
- Operating Temperature Range: 15 - 70°C
- Electrolyte: Alkali Solution (KOH, 30wt%)
- Active Area per Cell: 12 cm²
- H₂ Flow Rate: 70 mL/min
- O₂ Flow Rate: 35 mL/min
- Applied Voltage Range: 1.6 - 2V
- Power Capacity Range: 2.5 - 20W

PEM electrolyzer

- Permissible Voltage: up to 2VDC
- Permissible Current : up to 1.5A
- Hydrogen Production: up to 10mL/min
- Oxygen Production : up to 5mL/min
- Electrode Area: 2.9 cm²
- Requires Commercial distilled (deionised) water with a conductivity of < 2 μS/cm
- Dimensions (H x W x D): 2.0" x 2.0" x 1.6" (51 x 51 x 41 mm)
- Weight: ~2oz (58 g)



Double-Cell PEM electrolyzer stack

- Hydrogen Production Rate: 65 cm³/min
- Oxygen Production Rate: 32.5 cm³/min
- Hydrogen Storage Volume: 80 cm³/min
- Oxygen Storage Volume: 40 cm³/min
- Power Consumption: 16 Watts at 4.0 VDC
- Permissible Operating Voltage: 0 - 4 VDC
- Permissible Operating Current: 0 - 4.4 A
- Permissible Operating Pressure: 0 - 5 mbar
- Electrode Area: 2 cells at 16cm² each
- Operating Medium: Distilled Water
- Dimensions (H x W x D): (250 x 250 x 120 mm)
- Weight: 2.1 pounds (950 g)

COIN CELL RESEARCH PROCESS, EQUIPMENTS & CONSUMABLES



BATTERY EQUIPMENT & ACCESSORIES

Multichannel Battery Tester:

Coin Cell Testing

- BTS 4000 5V 10mA
- BTS 4000 5V 20mA
- BTS 4000 5V 50mA

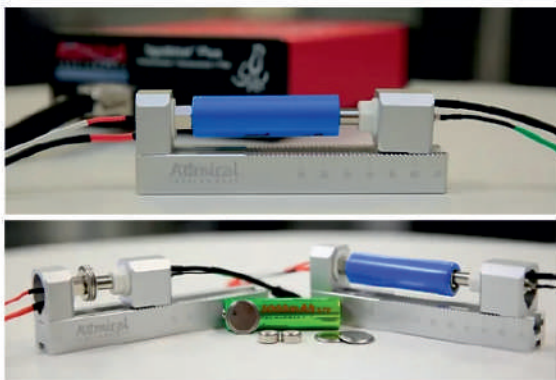


Pouch Cell & Cylindrical Cell Testing

- BTS 4000 5V 6A
- BTS 4000 5V 12A
- BTS 4000 10V 3A
- BTS 4000 10V 6A
- BTS 4000 20V 6A

Battery Pack Testing

- BTS 4000 5V 20A
- CE-6002n-100V50A (2CH)
- CE-6004n-100V50A (4CH)
- CE-6008n-100V50A (8CH)
- CE-7002-100V 100A

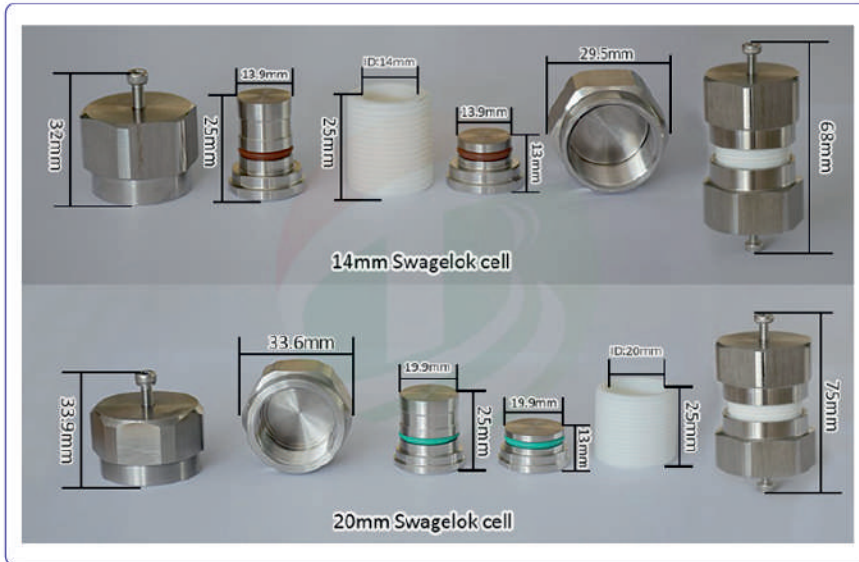


Battery Fixtures

- Multipurpose battery test fixture is designed to connect a wide variety of battery form factors with a potentiostat.
- Suitable for any cylindrical or coin cell geometry is compatible.
- Sense terminal and current terminals are isolated for lower noise during measurements.
- Suitable for four-point Kelvin connections as well.
- Specially designed for Squidstat potentiostat cables.
- Max recommended operating temperature: 85 degC.

BATTERY SPLIT TEST CELL

Model	TOB-EQ-STC	TOB-3 ESTC15
Structure	Full stainless steel	Full stainless steel
Electrode thickness	Max.6mm	Accept various thicknesses
Optional	10,12,15,19,20, and 24mm diameter customized	



SWAGELOK CELL










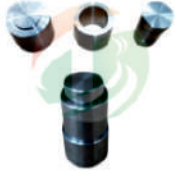
















Material SS 316 &
Teflon ID 13mm
OD 25.4mm

DOCTOR APPLICATOR



Model	TOB-KTQ-100	TOB-KTQ-180S	TOB-KTQ-150WA	TOB-KTQ-150D	TOB-KTQ-150DA
Feature	General type	With slurry guiding plate	Width adjustable	Double blades	Adjustable digital display
Material	Blade:304 stainless steel; frame: aluminum alloy				
Accuracy	10microns				
Thickness	0-3500um				
Width	50mm, 100mm, 150mm, 200mm, 250mm				

 <p>Manual disc cutter for electrode</p>	 <p>Pneumatic Coin Cell Crimper</p>	 <p>Hydraulic Coin Cell Crimper</p>	 <p>Split Test Cell</p>
 <p>Pneumatic Button Coin Cell Crimping Machine</p>	 <p>Electric Coin Cell Crimping Machine</p>	 <p>Manual Punching Cutter</p>	 <p>Powder Compacting Hydraulic Press Machine</p>
 <p>Manual Powder Press Machine</p>	 <p>Powder Press Machine Mould/Die For Round Shape</p>	 <p>Three-Electrode Split Test Cell with Pressure Gauge</p>	 <p>Three-Electrode Split Test Cell</p>
 <p>Split Test Cell for R&D Coin Cell Battery</p>	 <p>Split Test Cell for Lithium Air Battery Research</p>	 <p>Hydraulic Sealing Machine For Cylinder Cell and Coin Cell</p>	 <p>Electric Coin Cell Crimper and Disassembling Tool</p>
 <p>Coin Cell Disassembling Tool</p>	 <p>Automatic Coin Cell Crimper For Coin Cell</p>	 <p>Coin Cell Disc Punching Machine</p>	 <p>Hydraulic Press Machine For Coin Cell Electrode</p>
 <p>Coin Cell Electrode Disc Cutter</p>	 <p>Manual Crimping Sealing Machine For Coin Cell Battery</p>	 <p>Hydraulic Coin Cell Crimping Machine</p>	 <p>Coin Cell Crimper</p>

