



MECHSTELLAR

INNOVATE • DESIGN • ENGINEER



- 1 Since 2023
- 2 An Indigenous Technology
- 3 Customized Design Support
- 4 Collaborations
- 5 Skilled Engineers and Scientists
- 6 Advance Machining Solution
- 7 Customer Care service



Research aided Equipment Manufacturer



MECHSTELLAR

INNOVATE • DESIGN • ENGINEER

*Bliss with
Innovations*

EMPOWERING IDEAS. CRAFTING THE FUTURE.

Phone



+91 96269 60890
+91 4565 357 673

Email



mechstellarpvtltd@gmail.com

Website



www.mechstellar.com

Address



2/1303, Thandai periyar nagar,
9th Street, Karaikudi- 630002

Thank You !

RESEARCH AIDED EQUIPMENT MANUFACTURER

OUR PRODUCTS

- Electrochemical Cells
- Microbial Fuel Cells
- Ag/AgCl reference electrode
- Pt counter electrode
- Graphite working electrode
- Silver sheet electrode
- Gold sheet electrode
- Platinum sheet electrode
- Faraday cage
- Pipette stand
- pH Meter
- CO₂ Sensor

OUR MISSION



Vision

An Indigenous
Manufacturer of Mechatronics



Mission

Constantly Invest in the latest
technology and equipment to
ensure providing the customers
with the highest quality
products and services.



Goal

Manufacturing of
Research Aided Equipment .



pH meter



- High-precision digital pH measurement for laboratory
- Large clear display for real-time pH and temperature monitoring
- Simple three-button operation for easy calibration and control
- Stable measurement system for reliable and repeatable results
- Compatible with standard laboratory pH electrodes and probes
- Sturdy electrode holder arm for convenient probe positioning
- Compact bench-top design suitable for laboratory environments
- Ideal for electrochemical analysis, environmental testing, and research laboratories



CO₂ gas sensor



- Real-time monitoring of CO₂ concentration and ambient temperature
- Wide CO₂ measurement range: 400 – 5000 ppm
- Fast response time (<120 seconds) for reliable detection
- High stability sensor for accurate and repeatable measurements
- Integrated digital display for easy data visualization
- Operates across a wide temperature range (-10°C to 50°C)
- Supports operation in high humidity environments (0–95% RH)
- Suitable for laboratories, indoor air quality monitoring, and research applications



Faraday Cage

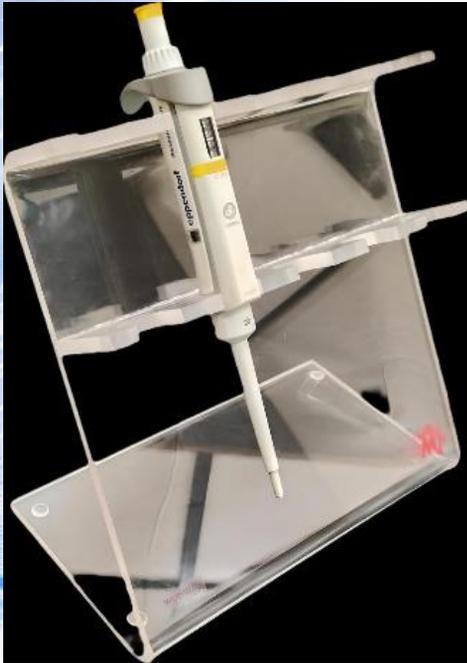


Material	Mild steel
Shield type	EMI shielding
Shield effectiveness	~ 40 - 80 dB
Frequency range	KHz - GHz
Door type	Front opening
Lock mechanism	Magnetic lock
Item part number	MPLFARCAG
Item dimension	35.5 x 20 x 35.5 cm
Item weight	2.5 kg

- Heavy-duty mild steel construction for robust EMI shielding
- Minimizes electrical noise for ultra-low current measurements (pA-nA range)
- Fully enclosed metallic body ensures effective electrostatic isolation
- Secure lockable front door for tight electrical continuity
- Powder-coated finish for durability and corrosion resistance
- Compatible with potentiostat, biosensors, and precision analog circuits



Pipette Stand



Holding Capacity	5 pipettes
Material	Acrylic (8 mm)
Item part number	MPLECCellACRSC500mL
Item dimension	26 x 15 x 26 cm
Item weight	500 g

- Made from acrylic, can be cleaned by water and alcohol
- Hold up to 5 single and multi-channel pipettes.
- Z shape and transparent color provide clear identification of pipettes.
- Linear Vertical Stand Transparent.
- 8 mm thickness heavy and robust acrylic sheet
- Compact design suitable for laboratory benches
- Protects sensitive pipette mechanisms
- Prevents accidental contamination
- Extends pipette lifespan



Borosilicate Glass Electrolytic Cell



Capacity	40 mL
Working volume	25 mL
Head Space	15 mL
Cell material	Borosilicate
Cap material	PTFE
O-ring material	Silicon
Item Height	6.5 cm
Item Width	3.3 cm
Item part number	MPLECCellBOR40mL

- Primary applications include electrolysis of water, electrochemical synthesis reactions, electrochemical tests, and other laboratory use
- Sealed electrolytic cell designed for three-electrode (6.5 mm) systems
- air holes (3 mm) are equipped for gas purging
- O-ring for atmosphere gas protection
- Extensively utilized in water splitting, microbial fuel cell, soil sediment, metal corrosion research, and chemical engineering
- Please note: no electrode included in this set



Borosilicate Glass Electrolytic Cell

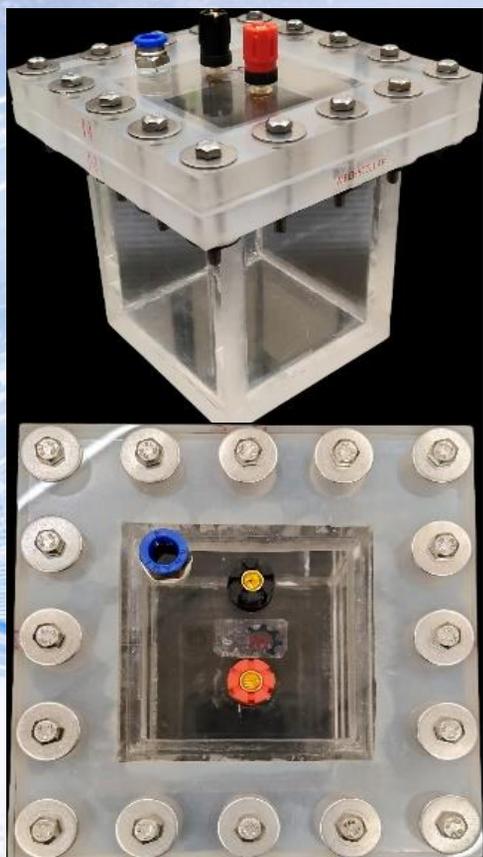


Capacity	75 mL
Working volume	50 mL
Head Space	25 mL
Cell material	Borosilicate
Cap material	PTFE
O-ring material	Silicon
Item Height	8.5 cm
Item Width	3.6 cm
Item part number	MPLCCellBOR75mL

- Primary applications include electrolysis of water, electrochemical synthesis reactions, electrochemical tests, and other laboratory use
- Sealed electrolytic cell designed for three-electrode (6.5 mm) systems
- air holes (3 mm) are equipped for gas purging
- O-ring for atmosphere gas protection
- Extensively utilized in water splitting, microbial fuel cell, soil sediment, metal corrosion research, and chemical engineering
- Please note: no electrode included in this set



Single Chamber Electrolytic Cell

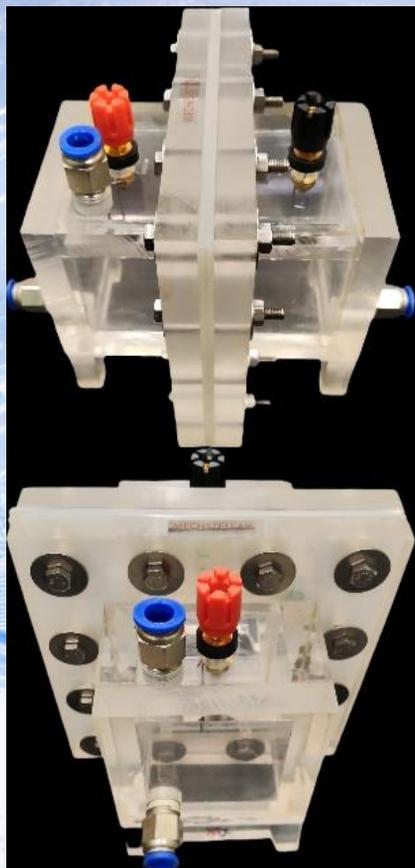


Capacity	580 mL
Working volume	500 mL
Head Space	80 mL
Cell material	Acrylic (12 mm)
Bolt/nut material	Stainless steel
Gasket material	Silicon
Item dimension	7.5 × 7.5 × 10 cm
Item part number	MPLCCellACRSC500mL

- Primary applications include electrolysis of water, electrochemical synthesis reactions, electrochemical tests, and other laboratory use
- Sealed electrolytic cell designed for two-electrode systems
- Air holes (6.5 mm) are equipped for gas purging
- Silicon gasket for atmosphere gas protection
- Extensively utilized in water splitting, microbial fuel cell, soil sediment, metal corrosion research, and chemical engineering
- Please note: no electrode included in this set

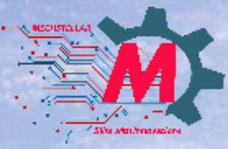


Double Chamber Electrolytic Cell

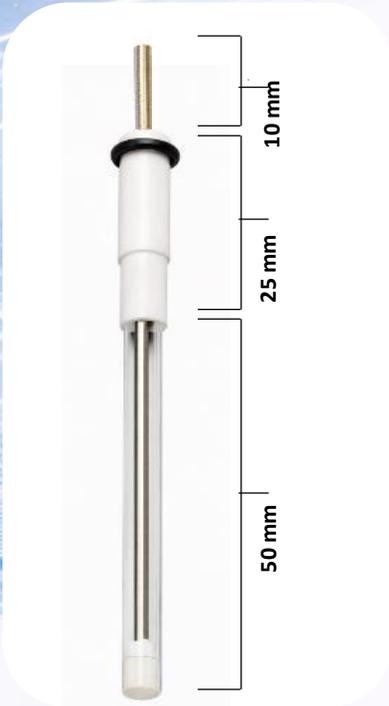


Capacity	250 mL
Working volume	150 (75+75) mL
Head Space	50 (25+25) mL
Cell material	Acrylic (12 mm)
Bolt/nut material	Stainless steel
Gasket material	Silicon
Item dimension	14 × 14 × 14 cm
Item part number	MPLCCellACRDC250mL

- Primary applications include electrolysis of water, electrochemical synthesis reactions, electrochemical tests, and other laboratory use
- Sealed electrolytic cell designed for two-electrode systems
- Air holes (6.5 mm) are equipped for gas purging
- Silicon gasket for atmosphere gas protection
- Extensively utilized in water splitting, microbial fuel cell, soil sediment, metal corrosion research, and chemical engineering
- please note: no electrode included in this set



Ag/AgCl Reference Electrode

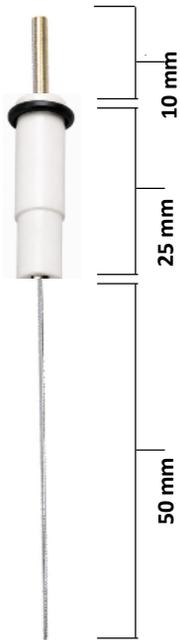


Internal wire	Silver (99.9 %)
Insulating holder	PTFE
Contact pin	Brass
Electrolyte chamber	Borosilicate
O-ring	Silicon
Electrolyte	KCl (Saturated)
Porous junction	Ceramic frit
Item part number	MPLREFELEAGAGCL

- Stable and reproducible reference potential
- Low noise and excellent electrochemical stability
- Compatible with aqueous electrochemical systems
- Suitable for three-electrode electrochemical setups
- Chemically stable silver/silver chloride interface
- Ideal for potentiostats and electrochemical workstations



Platinum Counter Electrode

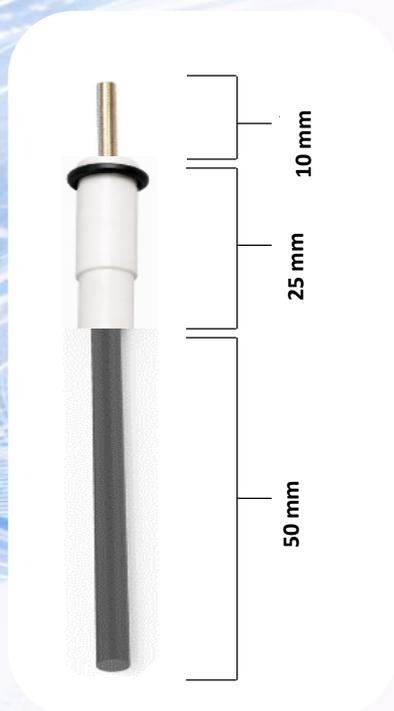


Electrode wire	Platinum (99.99 %)
Insulating holder	PTFE
Contact pin	Brass
O-ring	Silicon
Wire thickness	0.5 mm
Wire length	50 mm
Item part number	MPLCOUELEPLTWS

- High electrical conductivity for efficient current flow
- Chemically inert and corrosion-resistant platinum surface
- Stable performance in acidic, neutral, and alkaline electrolytes
- Suitable for high-current electrochemical experiments
- Compatible with standard three-electrode electrochemical systems



Graphite Working Electrode



Electrode	Graphite
Insulating holder	PTFE
Contact pin	Brass
O-ring	Silicon
Thickness	6.5 mm
Length	50 mm
Item part number	MPLREFELEAGAGCL

- High electrical conductivity for efficient electron transfer
- Chemically stable and corrosion-resistant graphite surface
- Wide electrochemical potential window
- Suitable for oxidation and reduction reactions
- Compatible with aqueous electrochemical systems
- Suitable for three-electrode electrochemical setups
- Ideal for potentiostats and electrochemical workstations



Noble metal Sheet Electrodes



Silver Sheet Electrode

99.9 %



Gold Sheet Electrode

99.999 % (5N)



Platinum Sheet Electrode

99.99 % (5N)

- High purity metal surface for reliable electrochemical performance
- Excellent conductivity enabling fast and stable electron transfer
- Chemically inert and corrosion resistant
- Suitable for long-term electrochemical analysis