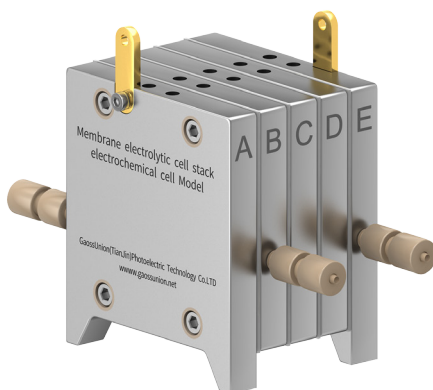
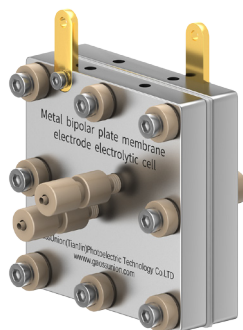
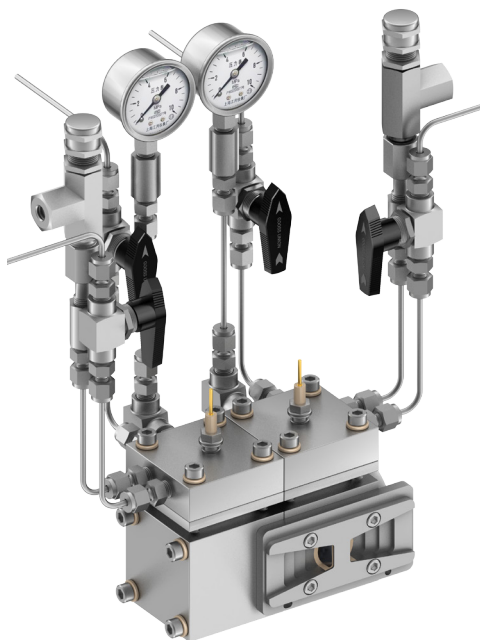


Electrochemical Product Catalogue

Electrolytic Cells Electrode



COMPANY

Company Profile Gaoss Union was established in 2008 in East Lake High-Tech Development Zone of Wuhan, known as "Optics Valley of China".

Ever since its establishment, Gaoss Union has devoted to research, development, production, sales and service of electrochemical products. It is a scientific and technological company with research of electrochemical reactions as well as design and manufacture of electrochemical devices as its major businesses.

Gaoss Union manufacture and sell three-electrode, electrolytic cells, flow cells, characterization cells, electrochemical materials, etc. required for electrochemical experiments, as well as provide customized electrode and electrochemical device services.

Welcome to inquire.



High-pressure Electrochemical Cell Series

Single chamber high-pressure electrochemical cell Model: P001-1

- Material: Ti construction.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 50ml and 100ml, customizable as per needs.
- Valve Material: Stainless Steel 304.
- Reference Electrode: AgCl electrode
- Counter Electrode: Pt plate electrode
- Working Electrode: Electrode clamp



Single chamber high-pressure electrochemical cell Model: P001-1

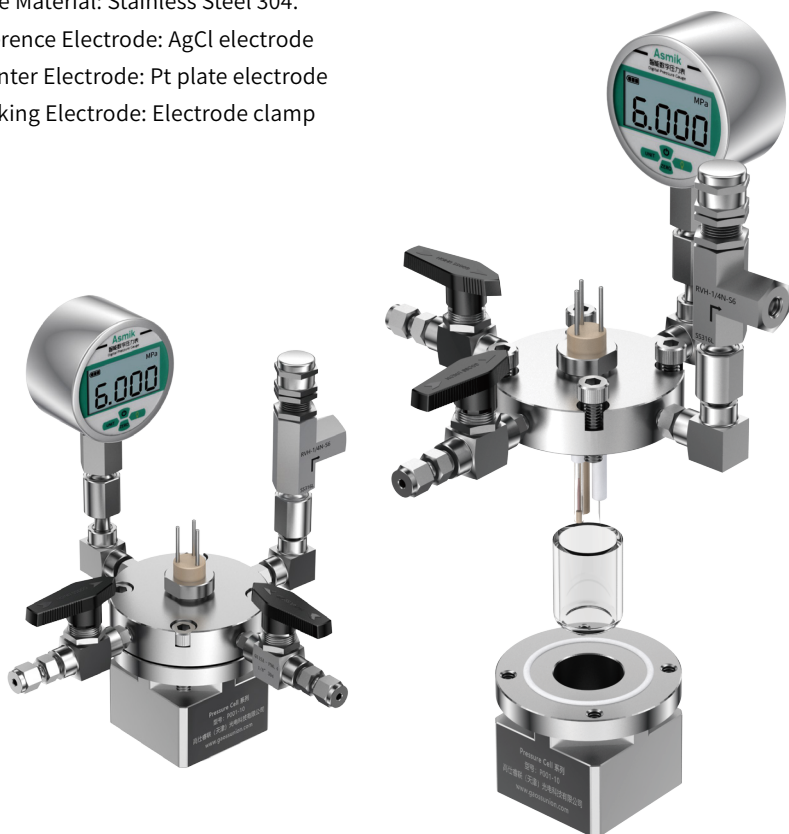
- Modification: Added optical window to P001-1 model.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 50ml and 100ml, customizable as per needs.
- Photoelectrochemical Cell: Features a quartz glass optical window with >95% transmittance.
- Material: Ti construction.
- Valve Material: Stainless Steel 304.
- Reference Electrode: AgCl electrode (sold separately).
- Counter Electrode: Pt plate electrode (sold separately).
- Working Electrode: Electrode clamp (sold separately).



High-pressure Electrochemical Cell Series

Single chamber high-pressure electrochemical cell Model: P001-1

- Material: Constructed from high purity Ti.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 10ml, customizable based on requirements.
- Valve Material: Stainless Steel 304.
- Reference Electrode: AgCl electrode
- Counter Electrode: Pt plate electrode
- Working Electrode: Electrode clamp



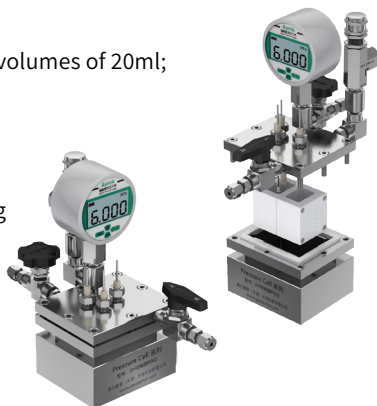
Model	Specifications
P001-1	50&100ml
P001-2	50&100ml, with optical window
P001-10	10ml

All sizes listed are common sizes, can be customized according to requirements.

High-pressure Electrochemical Cell Series

Dual chamber high-pressure cell (with Internal replaceable film) Model: P002-1

- Material: Constructed from Ti.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 20+20ml, with individual volumes of 20ml; customizable based on requirements.
- Valve Material: Stainless Steel 304.
- Electrode System: Three-electrode system.
- Electrode Configuration: Reference and working electrodes share a chamber, while the counter electrode is in a separate chamber.
- Reference Electrode: AgCl electrode
- Counter Electrode: Pt plate electrode
- Working Electrode: Electrode clamp



Dual chamber high-pressure cell (with Internal replaceable film) Model: P002-2

- The cell has been modified by adding an optical window on the basis of P002-1.
- The cell is made of high purity Ti.
- The maximum pressure resistance is 6Mpa.
- Available in volumes of 20+20ml.
- The cell with an optical window made of quartz glass, with a transmittance >95%.
- The valve is made of stainless steel 304.
- The individual volume is 20ml, and it can also be customized according to requirements.
- The reference electrode is a AgCl electrode.
- The counter electrode is a Pt plate electrode.
- The working electrode is the electrode clamp.



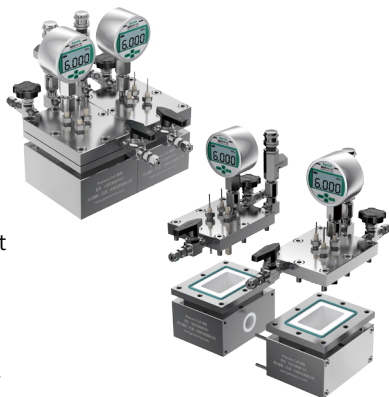
Model	Specifications
P002-1	20+20mL
P002-2	20+20ml, with optical window

High-pressure Electrochemical Cell Series

Dual chamber high-pressure cell (with externally exchange membrane)

Model: P003-1

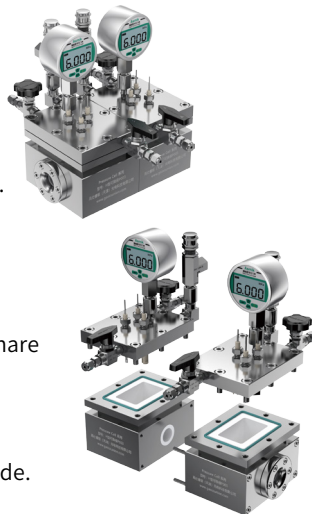
- The cell is made of high purity titanium.
- The maximum pressure resistance is 6Mpa.
- Available in volumes of 50+50ml, 100+100mL.
- The valve is made of stainless steel 304.
- The individual volume is 20ml, and it can also be customized according to requirements.
- Three-electrode system.
- The reference electrode is a pressure-resistant Ag/AgCl electrode.
- The counter electrode is a pressure-resistant platinum plate electrode.
- The working electrode is the electrode clamp.



Dual chamber high-pressure cell (with externally exchange membrane)

Model: P003-2

- Modification: Added optical window based on P003-1 model.
- Material: Constructed from high purity Ti.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 50+50ml and 100+100ml.
- Optical Window: Quartz glass with >95% transmittance.
- Valve Material: Stainless Steel 304.
- Individual Volume: 20ml, customizable based on requirements.
- Electrode Configuration: Three-electrode system.
- Electrode Setup: Reference and working electrodes share a chamber, while the counter electrode is in a separate chamber.
- Reference Electrode: pressure resistant AgCl electrode.
- Counter Electrode: pressure-resistant Pt plate electrode.
- Working Electrode: Electrode clamp.



Model	Specifications
P003-1	50+50mL
P003-1	100+100mL
P003-2	50+50mL
P003-2	100+100mL

All sizes listed are common sizes, can be customized according to requirements.

Committed to the electrochemical equipment research&development, and manufacturing

High-pressure Electrochemical Cell Series

High-pressure flow test cell for gas diffusion Model: PFC-1\PFC-2



Performance indicators

- Flow rate setting range: 0.01~50.00mL/min, with a setting increment of 0.01mL/min.
- Flow accuracy: $\pm 1.0\%$ (10.00mL/min, 8.5MPa, water, room temperature).
- Flow stability: $RSD \leq 0.3\%$ (10.00mL/min, 8.5MPa, water, room temperature).
- Maximum working pressure: 30MPa (0.10~20.00mL/min), 20MPa (20.01~50.00mL/min).
- Pressure Accuracy: Display pressure error within $\pm 3\%$ or 0.5MPa.
- Pressure pulsation: $\leq 0.4\text{MPa}$ (flow rate 10.00mL/min, pressure $8.5 \pm 1.5\text{MPa}$).
- Pump sealing: Pressure 30MPa, time 10min, pressure drop not exceeding 1.5MPa.
- Communication method: 485 interface communication.

Flow Cell indicators

- The cell is made of Ti.
- The volume of the cell is 1ml.
- The dimension of the cell is 50mm $\times$ 50mm.
- The internal channel is 10 $\times$ 10 $\times$ 10mm.

Physical specifications

- Weight: 12kg.
- Power supply: AC 220V ($\pm 10\%$), 50Hz.
- Power consumption: 200W.
- Dimensions: 420mm $\times$ 300mm $\times$ 175mm (L x W x H).

Model	Specifications	Remark
PFC-1	10*10	The anode and cathode share a common channel
PFC-2	10*10	The anode and cathode have separate channels

All sizes listed are common sizes, can be customized according to requirements.

High-pressure Electrochemical Cell Series

Photocatalytic high-pressure electrochemical cell Model: P004



This electrochemical cell features a construction incorporating high-purity titanium for the cell body and high-borosilicate glass as the inner cell material. The utilization of a quartz optical window enhances its suitability for photochemical reactions. Furthermore, the cell chamber can be operated under vacuum conditions.

Cell Material: High-purity titanium

Optical Window Material: Quartz glass (Transparency >95%)

Inner Cell Material: High-borosilicate glass

Vacuum Capability: The electrolytic cell is vacuum-compatible.

Model	Specifications
P004-1	Single-layer capacity is 50ml
P004-1	Double-layer capacity is 50ml

All sizes listed are common sizes, can be customized according to requirements.