

Cell

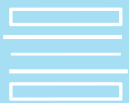
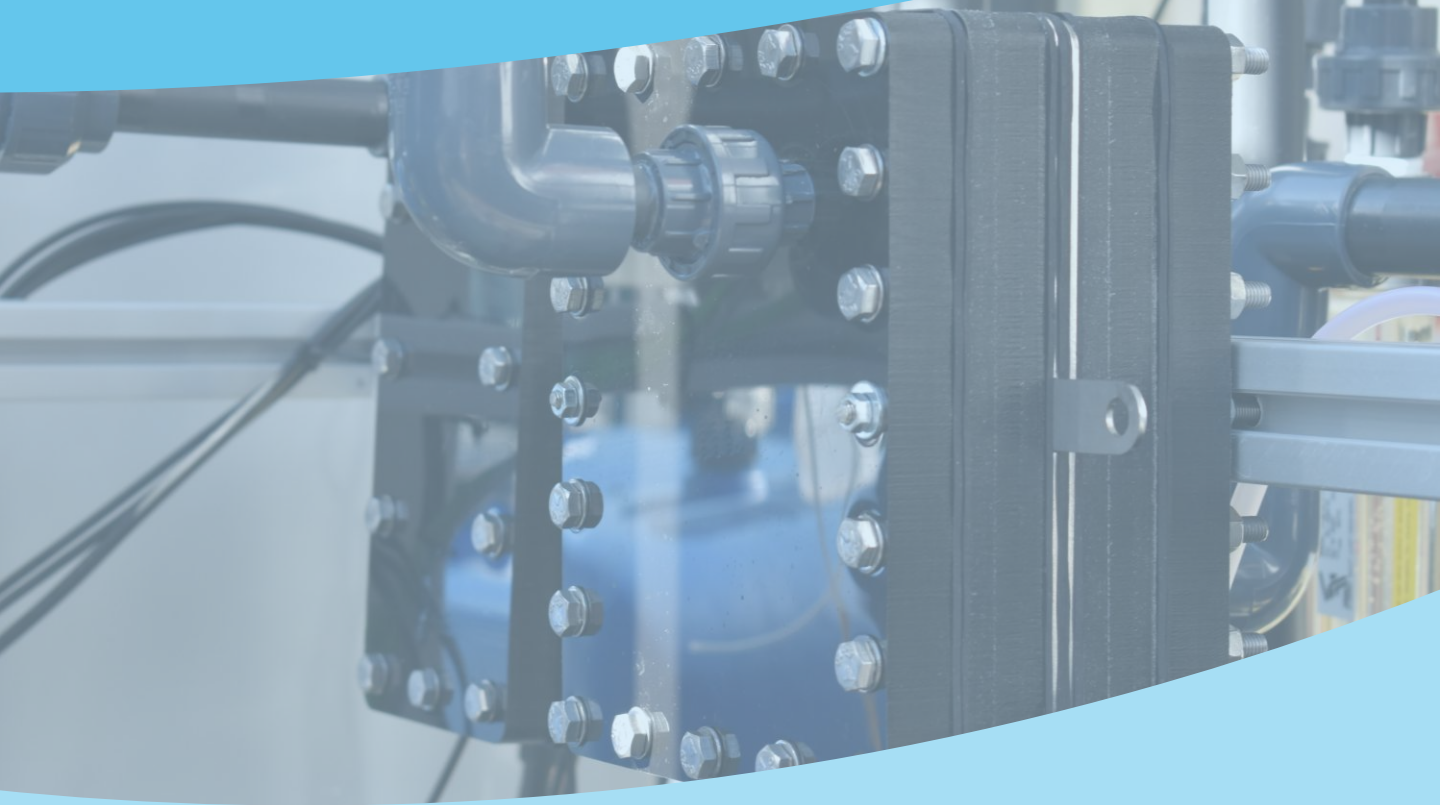


Plate and frame configuration



Customized electrodes



Adjustable active anodic area

The equipment

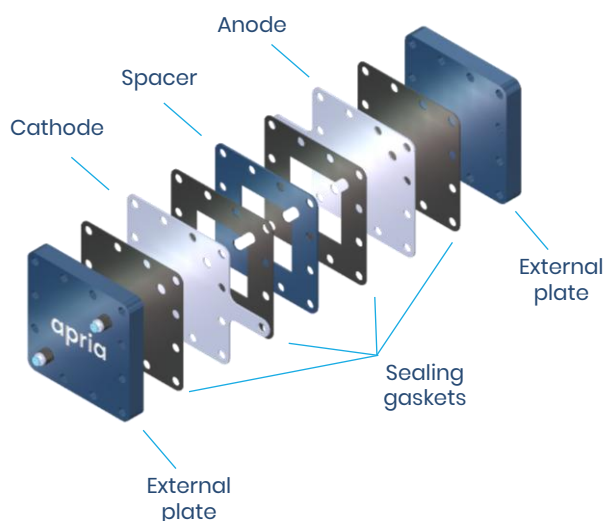
Apria Systems has designed a series of flexible customized electrochemical cells, being possible to select their **configuration** (gap between electrodes, number of compartments, etc.), **the active anodic area and the geometry of the electrodes**.

We have a wide variety of **electrodes materials** (BDD, carbon felt, IrO₂, Ni, PtO_x, RuO₂, stainless steel, Ti, etc.), allowing you to take your cell customization to the next level.

We also offer you maximum flexibility through our **interchangeable electrodes and cells**, allowing you to test different electrode materials in the same cell or different cells in the same equipment.



Elements of the system



Operation

1. Hydraulically connect the cell to the external circuit in which it is integrated
2. Electrically connect the electrodes' pins to an AC/DC power supply
3. Pump the fluid to be treated to the cell
4. Turn on the AC/DC power supply and select the desired working amperage and voltage
5. Perform the electrochemical treatment

We offer a wide range of alternatives to adjust our equipment to your needs

Reactor characteristics

Operation mode	Continuous / recirculation
Configuration	Plate and frame
Operation conditions	P_{\max} : 1 bar; T_{\max} : 50 °C, J_{\max} : 1.000 A/m ²
Volume (mL)	Selectable
Flowrate (m ³ /h)	Selectable
Number of compartments	1 – 3
Connection type	Barb fitting / quick plug
Case material	Polypropylene (PP) / stainless steel
Sealing gaskets material	Ethylene propylene diene monomer (EPDM) / thermoplastic polyurethane (TPU) / Viton®
Optional items	Automatization / feeding tank / magnetic stirring / online measurements (O ₂ , pH, etc.) / power supply / pumping / temperature control

Electrodes

Type	Frame / mesh / perforated / solid
Geometry	Circular / rectangular / square
Material	Al / BDD / carbon felt / IrO ₂ / Ni / PbO ₂ / Pt / PtO _x / RuO ₂ / SnO ₂ / stainless steel / Ti
Active anodic area (cm ²)	1 – 300
Gap between the electrodes (cm)	0.1 – 2

