

## **Electrolysis Equalizer**

## PRECISION PRESSURE BALANCING DEVICE FOR ELECTROLYSIS SYSTEMS

The Electrolysis Equalizer system was designed to address challenges of electrolysis designers in maintaining precise pressure balances and level control in modern electrolysis systems. A patent pending pilot balancing regulator augments the well established performance of the Equilibar back pressure regulator (BPR) to attain extremely tight pressure tolerance.

## **Key Features**

- Maintains pressure balance between two liquid or gas streams within about 0.02% (11 mbar at 55 bar MAWP or 0.16 psi at 800 psi MAWP)
- Fully mechanical control solution for ATEX compliance
- Can use liquid pressure reference to avoid mixing of incompatible gas, even in event of a membrane failure





## HOW IT WORKS

The schematic at left shows a simplified view of how the Electrolysis Equalizer can be used to provide balanced liquid pressure in an alkaline electrolysis cell.

A small liquid bleed flow is required to drain from the Equalizer balancing regulator to achieve high precision. This small flow can be circulated back to a lower pressure point or pump inlet.

SPECIFICATIONS - BETA VERSION	
MAWP	800 psi / 55 bar
MAWT	100 °C
Diameter	5 in / 12.5 cm
Ports	1/8" NPT
Body Material	SS 316L
Diaphragm Material	PEEK
O-ring Material	FKM
Cv (Max)	0.25 - 0.035
Expected bleed rate	5 - 30 ml/min