

ElectroChem Acid Recycle System

Purify and recycle waste acid. Lower chemical costs.

Saltworks' ElectroChem Acid Recycle System recovers and purifies waste acid for re-use: reducing chemical costs and waste.

Quick facts

- Recover any acid: HF, HNO₃, HCl, H₂SO₄, organic acids, and more. pH tolerance of 0-12.
- Pure acid is transferred to freshwater via Saltworks' proton selective ion exchange membranes

Advantages over diffusion dialysis

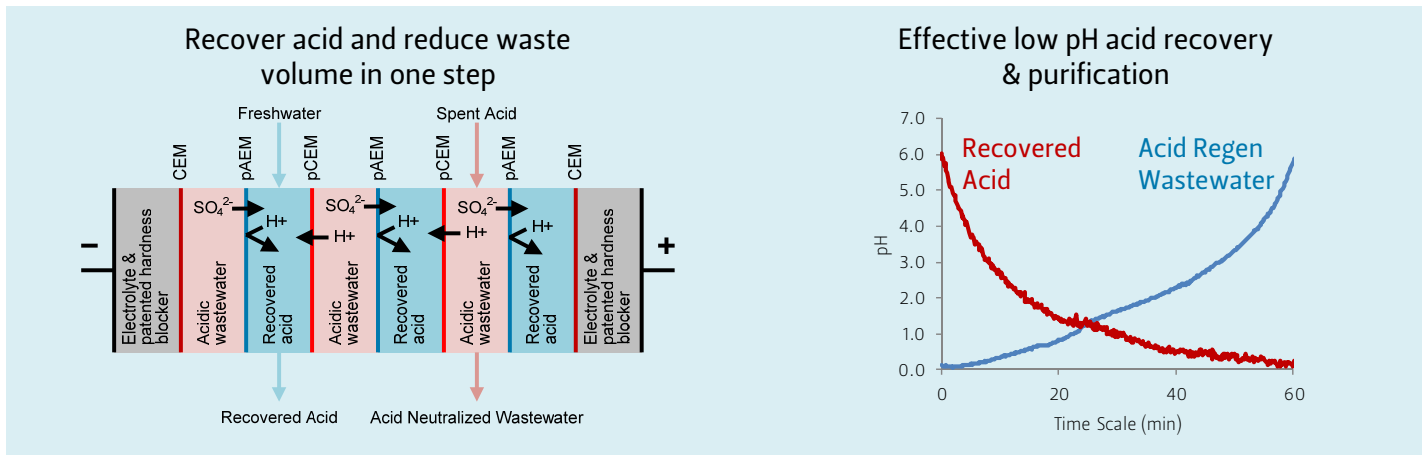
- pAEM proton blocking anion exchange membranes prevent back diffusion
- Electrically driven for higher recoveries & smaller plants

Benefits

- Recycle acid and reduce chemical costs
- Reduce waste acid strength, improve safety
- Skid mounted, simple system
- Fully automatic system options

Applications

- Aluminum anodizing, etching, brightening
- Battery acid and electronics recycling
- Steel pickling; mineral extraction
- Ion exchange resin regeneration



Saltworks' high performance IonFlux proton membranes



Mobile pilots (0.5 tonne/day)



Full scale (5 to 50 tonne/day) skidded system



Contact projects@saltworkstech.com for a performance and economic assessment

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电化学酸循环回收系统

纯化废酸，降低化学品成本。

Saltworks 的电化学酸循环回收系统能回收和纯化废酸，使其得以再利用：降低化学品成本以及废物排放。

内容提要

- 回收多种酸：氢氟酸，硝酸，盐酸，硫酸，磷酸，有机酸等等。
- 纯化的酸通过 Saltworks 的质子选择膜转移到水中

优点

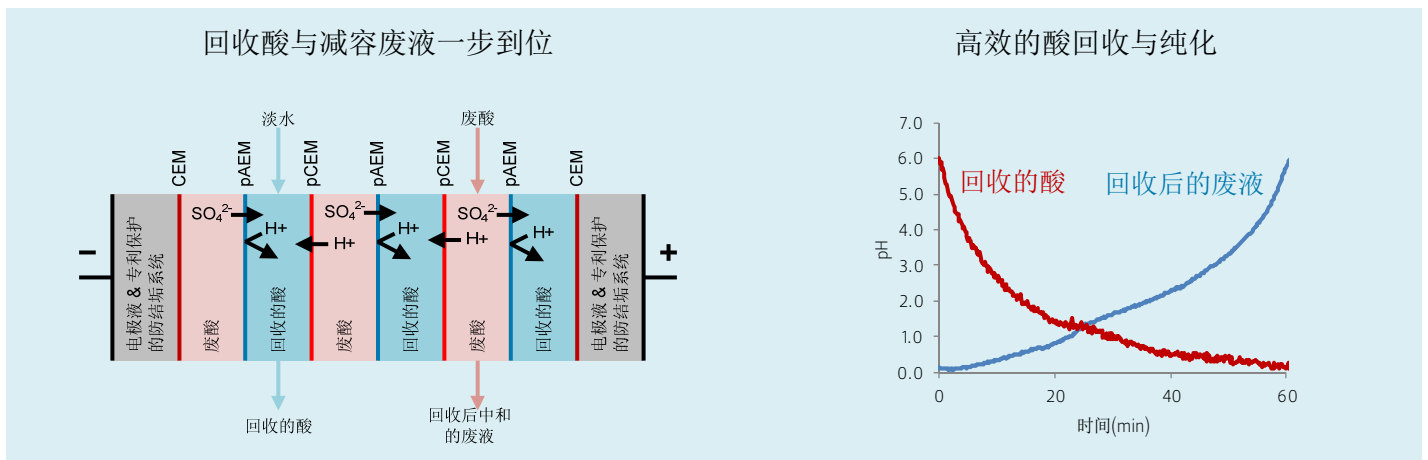
- 回收酸并降低化学品成本
- 降低废酸强度，提高安全性
- 拖撬式与简洁的系统
- 可选择全自动系统

对比扩散渗析的优势

- 抗酸渗透阴离子膜可防止质子反向扩散
- 基于电驱动，设备规模小，回收率高。

应用

- 化成铝箔，铝电解电容器，铝刻蚀
- 电池酸液及电子产品回收
- 钢酸洗；矿物提取
- 离子交换树脂再生



IonFlux 高韧性质子离子交换膜 (pAEM & pCEM)



可移动中试设备(0.5 吨/日)



大型 (5 -50 吨/日) 可滑动系统



请与 projects@saltworkstech.com 联系，可提供性能和成本评估。

请浏览我们的案例分析：<http://www.saltworkstech.com/cn/case-studies/>