

Concentrating Protein? Cut CIP Costs in Half

How many steps in a “four-step” membrane CIP?

Seems like a silly question. Or a riddle. But when the flushing steps are counted, **typical membrane cleaning programs become 11 steps or more.**

That's a lot of water and wastewater to treat.

Fouling-Immune Technology

ZwitterCo developed a breakthrough membrane technology **immune to irreversible fouling from fats, oils, grease, and proteins** based on the extreme hydrophilicity of zwitterioncs. This has been proven by our first commercial installation, an industrial bioprocessing protein concentration **in operation for nearly 2.5 years.**

Following the early success of our first superfiltration (SF) membrane, ZwitterCo is now implementing this technology across a range of membrane types, from RO to UF, and designing **sanitary products specific for food, dairy, and beverage processes** that enable a daily **1-step clean** plus sanitization.

Sustainability...At Lower Cost

A simple drop-in replacement will **cut cleaning costs by >50%** by reducing chemicals, make-up water, wastewater, and energy. Additionally, **chlorine is not required** to restore membrane performance!

By switching to ZwitterCo membranes and simplifying CIP programs, protein concentration systems can **save over \$1,200 per year** per 8038 membrane element. And RO polishers can save over \$700 per year per 8038 or 8040 element.

Conventional Membrane Cleaning

Water Flush

Alkaline Wash

Water Flush

Enzyme Wash

Water Flush

Acid Wash

Water Flush

Alkaline Wash

Water Flush

Sanitization

Water Flush



Simplified Cleaning with Zwitterionic Membranes

Water Flush

Alkaline Wash

Water Flush

Sanitization

Water Flush

Save >50% on CIP by switching to ZwitterCo membranes

ZwitterCo can help you reduce:

- CIP chemicals
- Make-up water
- Wastewater generated
- Energy
- Cleaning time
- Chlorine usage

Fast Facts:

- Easy drop-in replacement
- No CAPEX
- No system modifications
- Patented, zwitterionic chemistry

