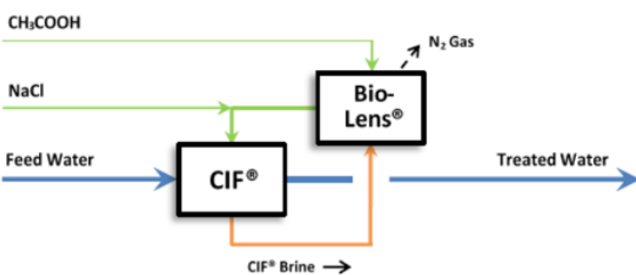


Zero-brine, Natural Denitrification

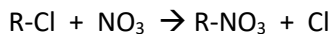
CIF-Bio®

Continuous Ionic Filtration and Biological Denitrification

CIF-Bio® is a combination of CleanTeQ's Continuous Ionic Filtration (CIF®) technology and CleanBio® denitrification technology for treatment of nitrate and COD from wastewaters.

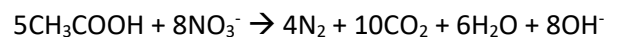
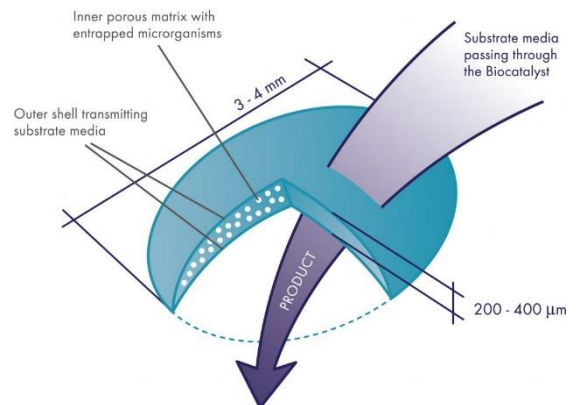


The CIF® process uses ion exchange to selectively remove nitrates and negatively charged COD.



The spent resin is regenerated with a salt solution. Spent solution is then treated by the CleanBio® technology which removes nitrates and COD allowing the salt solution to be recycled. This lowers salt reagent consumption and eliminates brine production for zero-liquid discharge (ZLD) treatment.

The CleanBio® technology utilizes encapsulated bacteria immobilised in a porous PVA gel. This promotes extremely dense bacterial populations, allowing CleanBio® to operate at significantly lower footprints with elevated denitrification activity.



The combination of CIF® and CleanBio® technology can provide a tertiary treatment solution when conventional water treatment does not reach your target, in addition to treating primary waste streams.

Advantages:

- ✓ Small Site Footprint
- ✓ No Brine Production
- ✓ Targets Nitrogen Compounds
- ✓ Low Energy & Reagent Consumption
- ✓ Extremely Robust System

Contact Us:

+61 (3) 9797 6700
info@cleanteq.com
www.cleanteqwater.com

CLEAN
TEQ
WATER

CIF® System

CleanBio®
Reactors

Control
Room

Nutrient Tank

Brine
Make-Up
Tank



CLEAN
TEQ
WATER

**The CleanBio® technology also includes CleanBio®-N for ammonia removal*