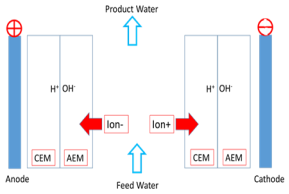
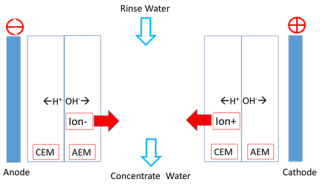
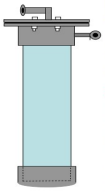
# ERIX Solutions Corp 上海永碧环境技术有限公司




LINX Deionization




LINX Regeneration



LINX Membrane Cartridge

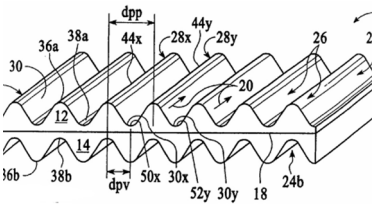
LINX600

LINX600

## Effective Removal of Contaminants — Nitrate, Ammonia-N, P, Heavy Metals

- Unique membrane—anti-fouling, anti-scaling, strong disinfection, long lifetime, no spacer, low pressures
- In-line, fully automated, and pollution-free deionization and regeneration
- Portable, highly scalable, and quick to deploy
- Wide range of applicable industries at low operating cost

## LINX's Uniquely Designed Ion-exchange Membrane




LINX 复合离子交换模，无隔离器

**Spacer-Free** — The LINX replaceable cartridge is the only membrane design which does not use a spacer. Membranes are separated by surface texture providing a 200 µm gap. This unique spacer-free design provides low operating pressures (thereby avoiding membrane or system rupture), high membrane packing density, and low cost designs.

**Deionization and Regeneration** — The membrane comprises a cation layer secured to an anion layer. During deionization, cations and anions migrate towards the electrodes and are absorbed by the cation and anion layers. During regeneration, the electrode polarity is reversed and the $H^+$ and $OH^-$ generated within the LINX membrane regenerate the membrane, fully restoring capacity in several minutes. The LINX system produces water continuously: while two-thirds of LINX cells are deionizing, the others are in regeneration.

**Excellent Disinfection** — Strong disinfecting agents are formed inside LINX systems, including HOCl, free radicals, $H^+$, and $OH^-$. Third party testing found LINX systems reduce bacteria and virus up to 99.9999%.

**Anti-fouling, Scaling Resistant**—The disinfecting capability ensures that LINX cartridges do not allow growth of microbes. LINX membrane and systems are resistant to chlorine, strong acid and strong base. LINX systems are equipped with an automated acid wash system employing strong mineral acid to remove accumulated scale or COD and return membrane to its original performance.

## LINX 600/1000 Equipment

LINX systems consist of six membrane cartridges, power supply, industrial IoT sensors, and a central control system. Each membrane cartridge comprises electrodes. The central control system manages all treatment processes based on operating data, including conditioning, deionization, regeneration, and cleaning functions. The process recipe is designed to achieve the treatment goal and can be dynamically adjusted based on the changing operating conditions. Operation can be controlled over the ERIX Cloud.

LINX treatment capacity scales linearly with the number of cartridges. The LINX 600 system comprising six cartridges can treat 80-100T/Day, and the LINX 1000 system employing 150 cartridges can treat up to 2000T/Day.

LINX systems are assembled and configured at our factory. They are portable, stackable and quick to deploy.

LINX systems only require 75 um sediment pretreatment. They do not require chlorine removal or softening pretreatment. Membrane life is up to 5 years.

ERIX Solutions™ Corporation

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Textile Wastewater

LINX600 Treatment Before and After

Treating Landfill Wastewater

Treating Landfill Wastewater

Semiconductor Wastewater

## Applicable Market

1) Textile Die-printing — Remove COD, ammonia-N and color to achieve water reuse
2) Lithium-ion battery manufacture — Remove ammonia-N, COD to achieve water reuse, recovery of ammonia
3) Semiconductor manufacture — Remove heavy metal, ammonia-N, COD to achieve water reuse
4) Food processing desalination — Desalination of viscous liquids with suspended particles, e.g., dairy and soup
5) Healthy/Functional Beverage — Low TDS feed water production and treatment of high COD wastewater
6) Drinking water treatment — LINX systems deionize (including nitrate), soften, and disinfect 99+%
7) Power plant cooling water — Deionize, soften and disinfect cooling water to reduce scaling and microbes
8) Medical service — Produce low TDS feed water (replace RO), deionize and disinfect medical wastewater

## Sample LINX 600 System Deployments

**Textile —** A textile group reduces COD, ammonia-N, and color of wastewater to enable water recycling

**Landfill pond —** Remove health contaminants which cannot be treated at a municipal treatment facility

**Dairy liquid desalination —** A dairy company desalinates a by-product liquid to recover a valuable product

**Health drink producer—** A LINX system reduces COD in wastewater to enable water reuse

**Semiconductor —** Silicon wafer rinse water is treated to provide water recycling

**【Company Info】**

Based in Silicon Valley, California, and Shanghai, China, ERIX Solutions Corporation engineers and markets water treatment technologies and equipment. LINX technology, invented by Dr. Eric Nyberg, Founder and CEO, has been hailed as the most significant breakthrough water treatment technology in the past 40 years. Dr. Nyberg is the author of 50+ LINX related patents in 30 countries.

Since 2017 we have conducted over 30 on-site tests in different industries in China, our test results confirm the effectiveness of LINX technology for treating wastewater to enable water recycling. Our solutions also include micro-electrolysis for reducing COD, ammonia stripping technology for concentrated wastewater, and a unique bioreactor for very high COD concentrations including solid waste treatment. Please contact us for details.

**【Contact Info】**

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