Benefits and Advantages of Electropure™ Technology

There are three key advantages in Electropure™ Technology. These enable Electropure™ EDI to have higher efficiency, and longer life with less maintenance and fewer problems.

1. **Thin-Cell Technology.** Electropure™ EDI has always had thin cells. In EDI, there is a physical competition to drive ions horizontally across the cell before they leave the top of the cell. Electropure™ XL cells are 4mm wide, as compared to Ionpure® and E-Cell® which have cells about 10 mm wide. This allows higher water quality and higher efficiency.

2. **Thin-Concentrate Technology.** Electropure™ EDI uses a very thin concentrate, about 700 microns thick. It is made up of very thin woven fibers. This design creates turbulence at the membrane surface, keeping the membrane surfaces clean and close to pH 7, preventing fouling and scaling. The thin design also keeps the current low. Electropure™ avoids the use of a “filled concentrate” which can foul. The all-filled design was contemplated in the 1981 O’Hare patent, but was rejected because of its long-term problems.

3. **Non-fouling Electrode Technology.** Electropure™ EDI uses a special anode technology to limit the production of chlorine, which lengthens the life of the EDI module. It also uses a proprietary design which keeps the electrodes always on the acidic side, preventing scaling in the electrodes.

With these technologies, we find that scaling in systems is extremely rare. EDI module lifetime is designed to be long (longest life seen so far is 15 years).

SnowPure intentionally uses technologies in its products that minimize maintenance and maximize module lifetime.