



Smart Membrane Products

More Water + Less Cost

IntelliFlux[®]

Self-adaptive Flux Optimization
Control Software

www.waterplanet.com

INTELLIFLUX® CONTROL SOFTWARE

IntelliFlux® self-adaptive flux optimization control software autonomously enhances the performance of conventional membrane filtration equipment delivering up to 20% lower operating cost by maximizing throughput (“flow”) and uptime while minimizing chemical, energy and down-time. *IntelliFlux* can be used to optimize any membrane filtration system that has standard flux optimization capabilities: permeate relaxation, cross-flow, air scouring, backwashing and clean-in-place. In some applications, fluctuating influent water quality makes membrane filtration expensive or not possible. *IntelliFlux* automatically adapts and adjusts flux optimization actions to maintain maximum throughput and uptime for the most challenging and unsteady influent water qualities.



ENHANCED PERFORMANCE

IntelliFlux is a “software patch” with no equipment modifications required. *IntelliFlux* has already been used to optimize and control both ceramic and polymeric MF /UF membrane systems with up to 20% lower operating cost by maintaining higher flux and less down-time for chemical cleaning.

IMPROVED RELIABILITY

When influent water quality changes, *IntelliFlux* cycles through various flux optimization actions to find the most effective sequence to maximize throughput, while protecting membranes from becoming irreversibly fouled (clogged or blinded) which inevitably leads to expensive down-time for chemical cleaning.

BENEFITS

- ✓ Less process down-time
- ✓ Lower energy & chemicals
- ✓ Less operator attention
- ✓ Improved reliability
- ✓ Lower operating costs
- ✓ Extended membrane life
- ✓ Improved fouling tolerance

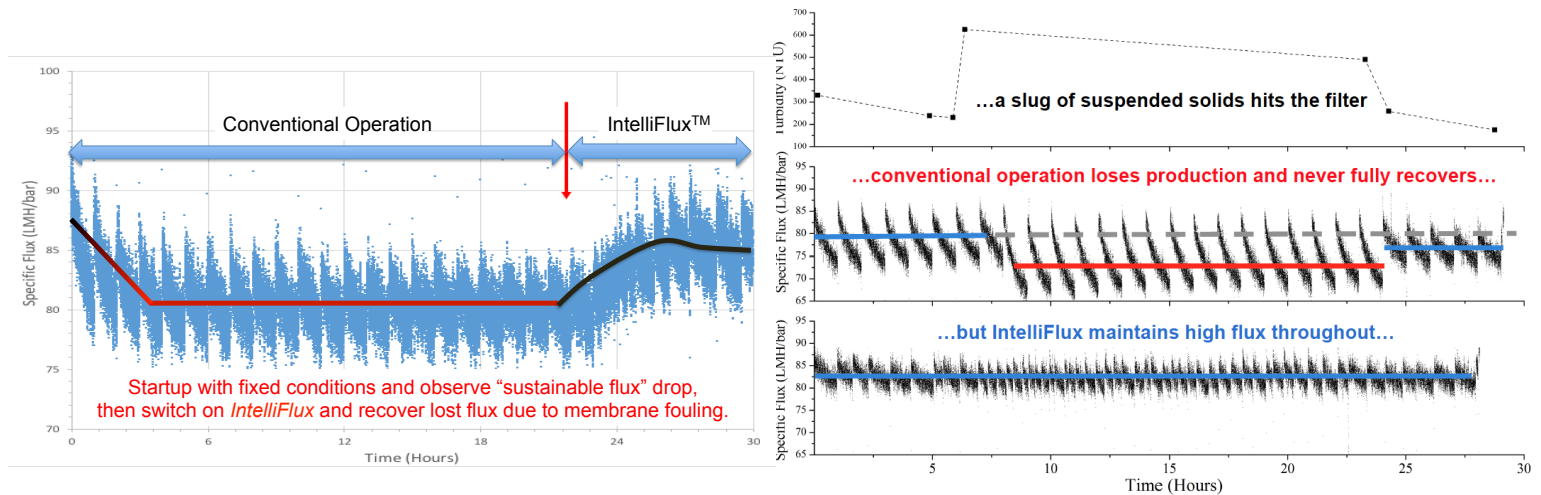
APPLICATIONS

- | | |
|------------------|--------------------|
| ✓ Desalination | ✓ Food & Beverage |
| ✓ Water Reuse | ✓ Bio-Pharma |
| ✓ Drinking Water | ✓ Power Generation |
| ✓ Oil & Gas | ✓ CPI & Refining |
| ✓ Mining | ✓ Bio-Fuels |
| ✓ Agriculture | |

MORE WATER. LESS COST.

SELF ADAPTIVE FLUX OPTIMIZATION

IntelliFlux was designed to optimize membrane filtration processes where the fast (seconds to minutes) kinetics of fouling outpaces human operators and engineer's ability to make adjustments. *IntelliFlux* automatically adapts and adjusts flux optimization actions in real-time to mitigate irreversible fouling, maintain optimum water production, and extend filter life.

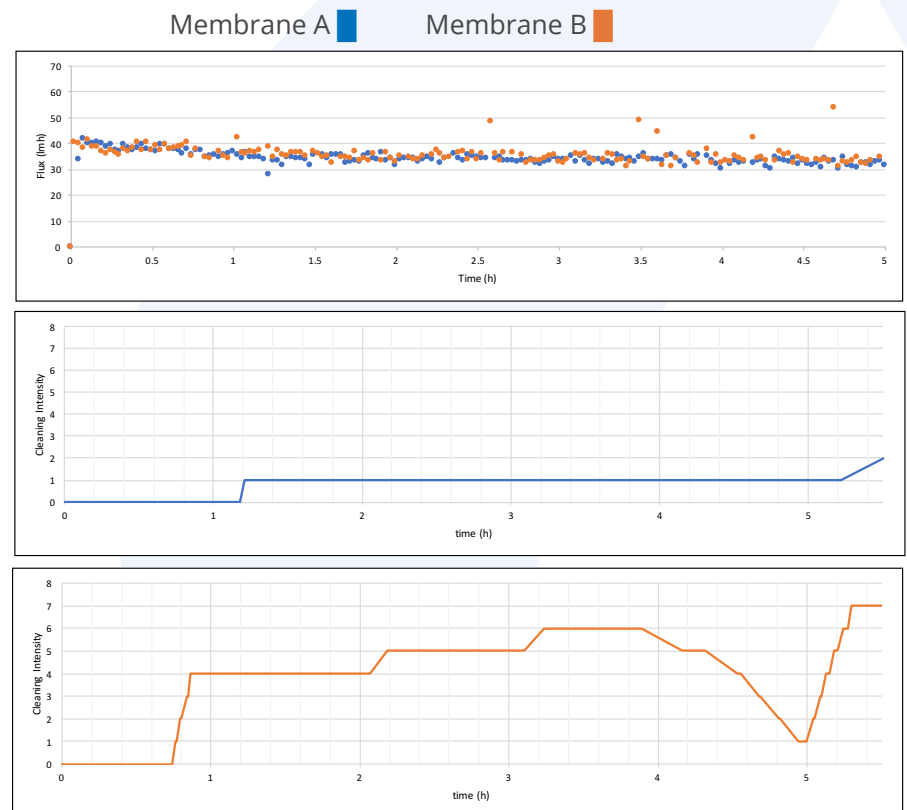


POWERED BY INTELLIFLUX®

Head-to-head testing of two membranes with the same pore size and nominal flux used *IntelliFlux* controls in tertiary filtration of municipal secondary wastewater effluent. The first membrane (Membrane A) was hydrophilic and fouling resistant and the other (Membrane B) hydrophobic and fouling prone.

IntelliFlux implemented less intense flux optimization protocols for the hydrophilic and fouling resistant membrane saving OPEX with less down-time, chemical usage, labor and wasted water.

IntelliFlux implemented intense cleaning protocols for the hydrophobic and fouling prone membrane to maintain the target flux.



"In our domestic wastewater, tertiary filtration application, PolyCera has lived up to its billing. Consistent TSS less than 1, all while functioning with relatively little cleaning requirement."

- Alan Pyle, Chief Executive Officer, WaterFleet, LLC

"Water Planet's qualifications in that area and the fact they can look independently at a lot of different commercial membrane technologies -- that is what attracted us to them for the membrane treatment side of things."

- David Pernitsky, Senior Research Engineer Suncor Energy Inc., Calgary, Canada

"Water Planet's knowledgeable and experienced engineering staff offers a depth of knowledge unmatched in the industry, and they offer such service in the most cost-effective manner we have seen to date."

- Jung-Chul Kim, Executive Vice President, R&D Division, Hyundai Engineering & Construction (HDEC)

Contact Water Planet today to find out how IntelliFlux® controls can revolutionize your membrane system

Corporate Headquarters:

8915 South La Cienega Avenue, Unit C
Los Angeles, CA 90301 USA
Phone: +1 424.331.7700
Email: info@waterplanet.com

Americas

Houston, TX: +1 832.544.3660
Philadelphia, PA: +1 856.505.7043
Mexico City, MX: +52 55.5752.9600

Europe

Germany: +49 2131.228.963

Asia

Ningbo, P.R.C.: +86 574.8746.7853
Hangzhou, P.R.C.: +86 180.6160.1251
Singapore: +65.9232.2212
India: +91 961.180.9032

www.waterplanet.com

© 2017 Water Planet Inc. All trademarks stated herein are the property of Water Planet Inc. All rights reserved.
IF Rev. B (01-17)

