ABSTRACT

Hydranautics has been a manufacturer of organic membranes for more than 30 years and has always been a technology leader. Being part of the Nitto Denko Group since 1987, hydranautics has inherited Nitto Denko’s innovative philosophy. In September 2011, hydranautics announced the commercialization of its new PVDF hollow fiber microfiltration module: HYDRAcap® MAX. This new out/in module features one of the highest membrane areas currently available in the industry. Furthermore, HYDRAcap® MAX offers an air scour (AS) mode that allows the designer to eliminate the backwash sequence and pump; this results in increased recovery and lower capital expenses. The key applications for HYDRAcap® MAX are reverse osmosis pretreatment and water reuse, for both industrial and municipal applications from various types of water sources. This study will introduce HYDRAcap® MAX technology and its advantages, including higher membrane area resulting in lower footprint and innovative design resulting in optimized recovery. It will also discuss the operating sequences (i.e. filtration, AS, and cleanings), provide data from a case study, and give an example of a medium size system.

Keywords: MF; Footprint; Air scour; Recovery; IMS

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