Ultrafiltration / Microfiltration Membrane Systems

Aries designs and manufactures Ultrafiltration (UF) & Microfiltration (MF) Systems for process and water treatment applications. Ultrafiltration & Microfiltration are processes that remove insoluble and colloidal contaminants from water and other fluids. This technology is ideal pre-treatment for Reverse Osmosis Treatments. Aries UF/MF Systems can be used individually or in combination with chemical assistance in order to achieve the best filtration possible. Aries capabilities include system design, on-site piloting, manufacturing and installing UF/MF Systems.

Typical Applications
- Food & Beverage
- Metal working and finishing
- Power Generation
- Semiconductor / Electronics
- Pulp & Paper
- Mining
- Chemical Manufacturing
- Oil & Gas production and refining

Aries UF & MF Systems are designed to meet the customer’s specific needs. Systems are designed with the optimum pretreatment, membrane selection, and automation to provide the lowest operating costs. Advanced membrane technology is used to provide long membrane life with enhanced chemical and fouling resistance. Pretreatment options such as coarse filtration and chemical coagulation are available depending upon application requirements. A Clean In Place (CIP) system is provided for ease of cleaning the PVFD membranes to recover loss of flux from foulants as well as providing for long membrane life cycle. Permeate Post treatment options include reverse osmosis, ultraviolet disinfection systems and absolute cartridge filtration. A selection of solids dewatering systems are available for the sludge generated with the UF/MF filtration process.
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Aries Custom Solutions

In addition to standard systems, Aries can provide custom designed system to meet a processes specific needs. Aries can develop best UF / MF process using lab studies, on site pilot studies and custom designed systems. One of Aries MF – RO filtration pilot system includes first stage chemical reaction tanks (three) followed by second stage MF system for solids removal followed by third stage RO system for TDS and sodium removal. First stage chemical reaction tanks (three) with chemical feed pumps, mixing and pH control. Chemical treatment is designed to precipitate pollutants that MF system will remove. These chemical reaction tanks feed the MF concentration tank.

Advantages of Aries Systems

- High quality effluent
- Less effected by upsets
- Potential to reuse effluent
- Skid mounted for easy installation
- High flux
- Simple operation
- Reduced labor costs
- PLC control
- Small foot print
- Low installation costs