

# Integrated Membrane Solutions (IMS) from AdEdge



## Reverse Osmosis Packages

### AdEdge Integrated RO Membrane Solutions

Designed for tap, well, or other surface water applications, AdEdge Reverse Osmosis systems using advanced membrane technology coupled with our other packaged treatment modules offer the complete integrated treatment solution. Our systems can serve a variety of applications including potable water, medical, boiler feed, manufacturing, bottling, and remediation. **Whether your water treatment application is for reduction of total dissolved solids (TDS) or much more complicated, AdEdge can integrate a custom treatment solution to meet your needs. We apply our process applications expertise to provide a “one stop shop” approach for managing challenging water.**

Our approach is simple and streamlined to accomplish your objectives:

1. We review your water quality and define treatment objectives
2. We determine site limitations, cost constraints, and site specific factors that affect the technology choice.
3. We evaluate various proven treatment technologies to accomplish your objectives
4. We work side by side with your engineer to define and design the treatment train to reduce your target contaminants at the lowest cost
5. We provide integration for the entire system (if desired) to achieve centralized treatment and simplicity of operation.

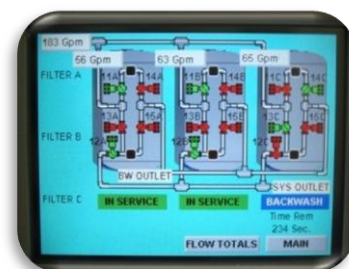
### Pre-Treatment

An essential aspect of applying membrane-based technology is adequate pretreatment of the raw water before reaching the membrane system. This is true whether the application is for potable water, commercial/industrial, or environmental. Without proper understanding of the water chemistry and parameters that affect membrane performance, high operational costs or non-performance will result. Pretreatment can be simple mechanical filtration for suspended solids, or include iron or manganese removal, organics or other contaminants that can foul and otherwise diminish membrane performance and require costly operation and maintenance.

We understand problem waters and can design the proper pre-treatment process to ensure the membrane system operates at peak performance.



AD-XL Series Reverse Osmosis Module



Allen Bradley Panel View HMI



Pre-Filtration Module



GFO Adsorption Media



AD26 Oxid. / Filtration Media



CO2 Gas pH Correction Panel



AD26 Iron, Manganese Treatment Skid

## Post-Treatment

Depending on the application, such as for potable water, the treated effluent may require pH correction or disinfection prior to the distribution. AdEdge offers a variety of chemical feed system modules for chlorination, pH adjustment and others which may be desirable to achieve final water quality.

## Competitive Advantages

The approach proposed by AdEdge Technologies offers the following advantages:

- *Cost-effective solutions that accomplish treatment goals without overdesign;*
- *Single source process responsibility;*
- *Multiple concurrent contaminant removal;*
- *Pre- and -post treatment can be integrated into a single control panel;*
- *Seamless process integration with other AdEdge equipment for simple operation and maintenance;*
- *Systems designed with energy management in mind to lower operating costs*
- *Less equipment and integration to procure, manage, operate, and maintain;*
- *Simpler installation and startup with one source supply;*
- *Efficient treatment/blending scenarios to achieve minimal loss of water (reject) compared to conventional RO;*
- *Less operator time required to perform O&M functions, maintain, and monitor the system.*



Chlorine Module



In-line Chlorine Monitor

## Technical Support to Engineers

We work closely with the customer and their design engineer from planning to start up providing value-added technical support during all phases of the project. Technical support for our integrated solutions can typically include:

- ✓ Review of laboratory water chemistry data that affects technology selection
- ✓ Specifications support for defining site-specific equipment needs
- ✓ Preparation of preliminary equipment and process shop drawings
- ✓ Equipment and chemical feed sizing and calculations
- ✓ Instrumentation and controls integration

## For More Information Contact

Whether your project is at the conceptual budget stage or near procurement, contact one of our applications specialists to see how we can help you select the most cost-effective treatment train for your water.



Recycle Pump Skid

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