Decentralized MBR Wastewater Treatment

Scalable, Cost-Effective Solutions for Development Projects & WWTP Retrofits
newterra is leading the way with decentralized wastewater solutions that help you reduce project costs with a sustainable treatment approach. Our modular membrane bioreactor (MBR) systems are scalable – allowing treatment infrastructure to be added in stages as capacity requirements grow.

The Right Solution for a Wide Range of Projects
newterra’s innovative wastewater treatment systems are ideally suited to many types of projects, including:

- Greenfield & Retrofit Projects
- Existing Infrastructure Tie-ins
- Municipal WWTPs
- New Residential Developments
- Hotels, Resorts & Restaurants
- Campgrounds & Trailer Parks
- Mobile Home Communities
- Off-Grid & Remote Municipal Plants
- New Commercial Developments
- Service Area Expansions
- LEED® Certified & Green Buildings
- Schools & Hospitals
- Golf Courses
- Sports & Recreational Facilities
- Highway Rest Areas

Self-Contained and Enclosed Systems
newterra MBR wastewater systems are modular, and can be configured as fully self-contained units that can be clad with a variety of materials to blend in with surrounding structures, or integrated into new or existing treatment structures. They are built in our MET-certified manufacturing facility and have UL electrical certification.

Add Infrastructure with Each Phase of a Project
Our modular, scalable treatment technology allows you to phase in wastewater infrastructure in parallel with the treatment demands of your development. newterra MBR systems can handle high loads, and are very resilient to flow and loading fluctuations. They are also extremely space efficient – reducing land requirements and providing more options of where the plant can be located. newterra systems can be loose-shipped or pre-manufactured, and we offer you the option of renting or leasing to minimize your initial capital expenditures.

Cost-Effective for New Facilities & Retrofits
At newterra, we offer both custom-designed and pre-engineered, packaged MBR treatment systems for new facilities. Our technology is also very well suited to retrofitting conventional BNR and ENR plants to comply with higher regulatory standards or expand capacity. newterra MBR modules can be easily incorporated into existing clarification tanks – more than tripling plant capacity within the current footprint and eliminating the need for costly infrastructure expansion.
Patented UF Membranes with Exceptional Packing Density

- Extremely compact design; 8 m² membrane surface area per cassette
- Efficient membrane aeration process minimizes power consumption by 50%
- Robust membranes can maintain consistent flux rates for long periods between cleanings
- Consistent long-term performance with fewer membranes & reduced operating costs
- Built in our ISO 9001:2008 certified facility
- Proven worldwide in thousands of installations

Excellent Permeate Quality That Meets Global Standards

newterra MBR treatment systems provide high quality permeate that meets or exceeds global regulatory standards for reuse applications or direct discharge – even in environmentally sensitive areas.

- WHO Health Guidelines for the Use of Wastewater in Agriculture & Aquaculture
- EU Bathing Water Directive (2006/7/EC)
- UN International Maritime Organization bacteriological limits
- California Title 22 – 4 Code of Regulations

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<thead>
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<th>Parameter</th>
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<tr>
<td>Biological Oxygen Demand</td>
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<tr>
<td>Total Suspended Solids</td>
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<tr>
<td>Ammonia-N</td>
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<tr>
<td>Total Phosphorus</td>
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<tr>
<td>Turbidity</td>
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Compact, Operator-Friendly & Sustainable Treatment Solutions

Compact MBR Systems That Save Precious Space

The footprint of newterra’s modular MBR systems is extremely small – requiring only one quarter of the space of a conventional activated sludge plant. Our systems eliminate secondary clarification and tertiary filtration by combining biological treatment with a physical membrane barrier.

Designed & Built for Minimal Maintenance

newterra MBR systems are field proven in some of the most extreme conditions on the planet. Feedback from operators has been a key ingredient in the development and refinement of our low maintenance solutions:

- Intuitive, user-friendly controls and instrumentation
- Built-in telemetry & remote monitoring reduce plant visits by operator
- Air scouring & periodic membrane relaxation minimize CIP requirements
- No backflushing required
- Built-in redundancy to eliminate downtime
- Proven in a wide range of regions, climates and altitudes

Sewage Treatment That Offers A Wide Range of Reuse Applications

newterra sewage treatment systems have been designed to extract clean water from sewage – delivering permeate of such high quality that it can be reused for a wide range of applications. Supplementary technologies, such as activated carbon and ultraviolet (UV) disinfection broaden the reuse opportunities.

Scalability Starts from Within

newterra systems deliver maximum treatment capacity in a minimum of space. MicroClear UF cassettes are the building blocks of our scalable MBR treatment systems. They allow a wide range of configurations to suit your flow requirements, system footprint, and existing tanks and equipment for plant retrofits. The patented cassettes are framed in modules that are submerged directly in the mixed liquor.
About newterra

A Global Water Technology Leader

newterra is recognized as a leader in the development of modular treatment solutions for water, sewage, wastewater and groundwater remediation for industrial, municipal, land development, commercial & residential markets. Our heritage of innovation in providing clean water solutions dates all the way back to 1863. Over that time, newterra has grown to over 200 people and we’ve installed thousands of treatment systems – some of which operate in the most extreme conditions on the planet.

Full Control from Start to Finish

At newterra, we take full control of virtually every aspect of the treatment systems we build – from process design and engineering to manufacturing, installation, operations and ongoing parts & service support. That also includes manufacturing our own MicroClear® UF membranes in newterra’s ISO 9001:2008 certified facility. This award-winning approach ensures newterra treatment systems meet our high standards for quality and on-time delivery.

Burlington, ON
Engineering & Sales Office

Brockville, ON
Head Office & Manufacturing Facility

Calgary, AB
Sales Office & Service Center

Trooper, PA
Engineering & Sales Office

Macon, GA
Manufacturing Facility

Venice, FL
Sales Office, Manufacturing Facility & Service Center

Santiago, Chile
Sales Office & Service Center

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