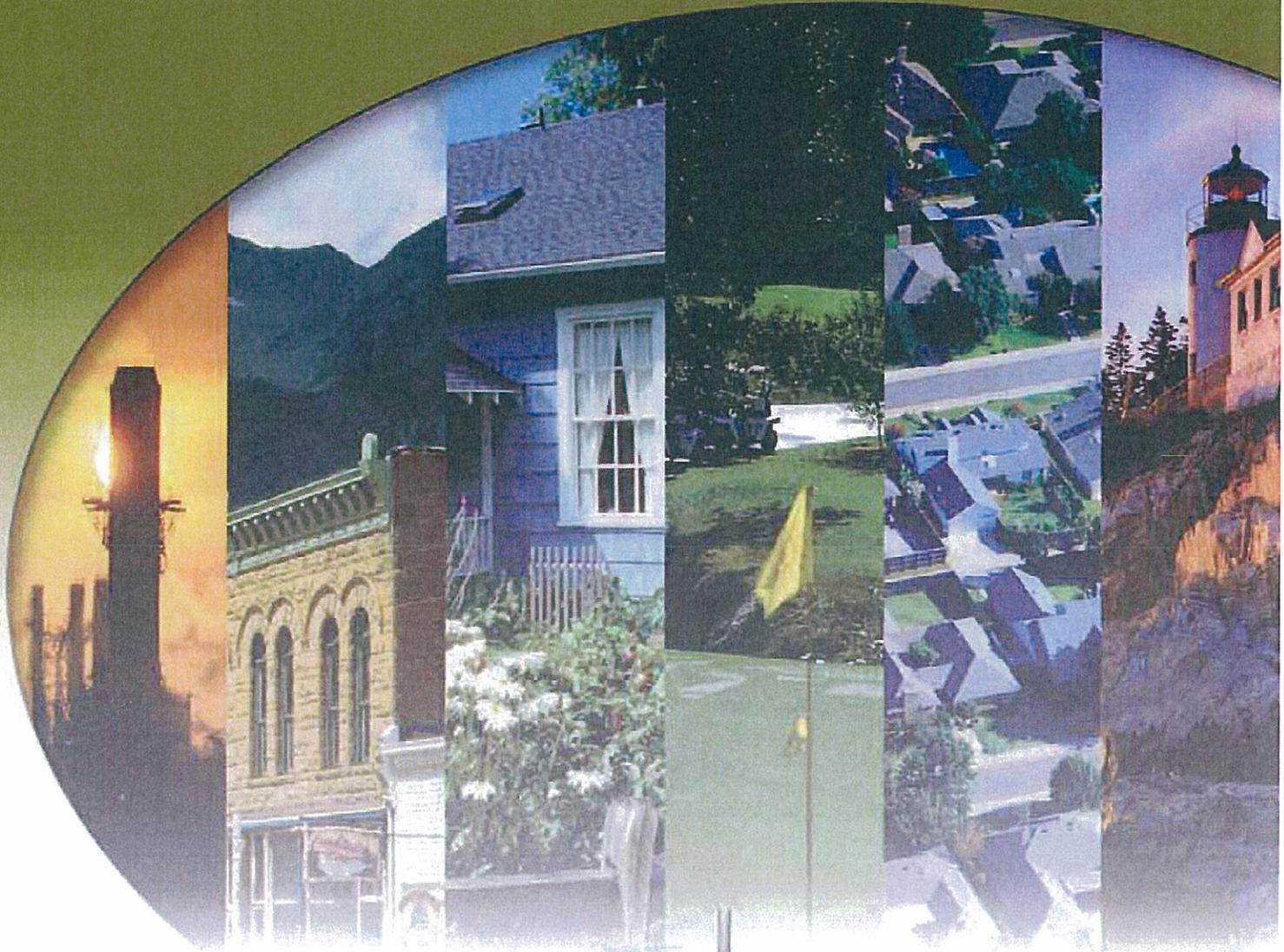


Appendix M

ProSTEP™

Effluent Pumping Systems



for
Onsite
Wastewater
Collection
and
Treatment



Ideal for:

- Effluent sewers
- Drainfields
- Textile filters
- Sand filters
- Peat filters
- Mounds
- Trickling filters
- Aerobic units
- Wetlands
- Lagoons
- Effluent irrigation
- Other applications



Orenco Systems
Incorporated

*Changing the Way the
World Does Wastewater®*

1-800-348-9843
orencocomm.net

ProSTEP™ System Components

Complete, Lightweight Package

ProSTEP Effluent Pumping Systems are a fully integrated package with seven compatible components. No need to shop for parts and pieces. In-tank equipment is lightweight, comes preassembled, and installs neatly into our tanks and most others, saving time and money.

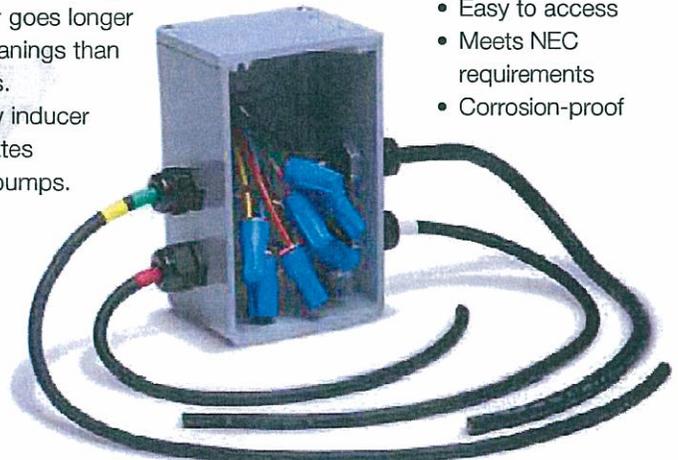
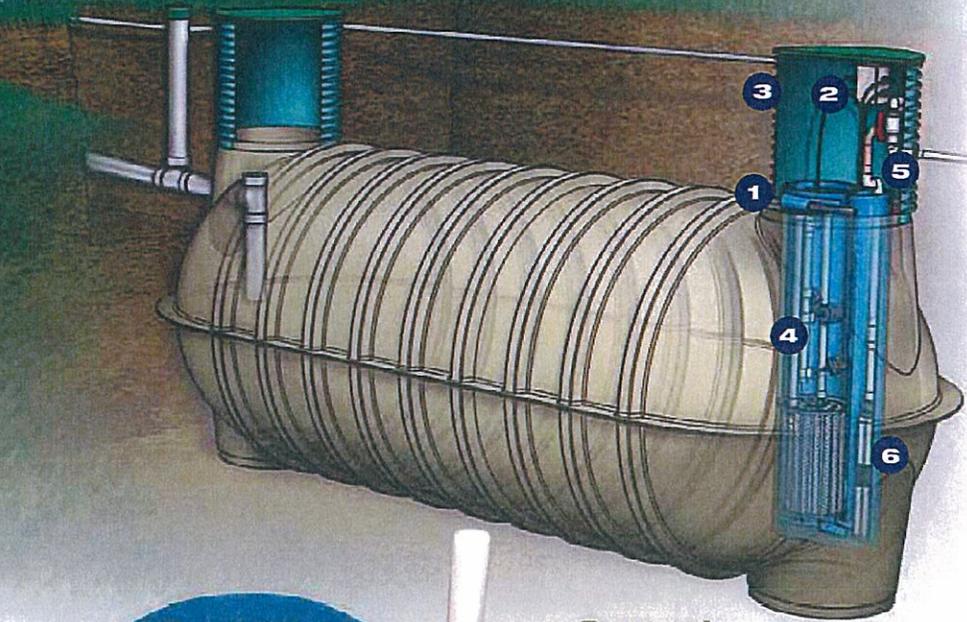
Orenco's **New Injection-Molded Fiberglass Tanks** are 100% watertight and water-tested, and they're strong enough to resist 4-foot (1.2-meter) burial, empty, with water to grade and a 2500-lb (1134-kg) wheel load. Available in 1000-gal and 1500-gal sizes (3785 L and 5678 L).

1 Biotube® Pump Vault

- Pump vault comes in standard and custom heights.
- Handle assembly aids removal of filter cartridge.
- Biotube filter goes longer between cleanings than other brands.
- External flow inducer accommodates one or two pumps.
- Removable float stem keeps floats in proper positions

2 Splice Box

- Protects splices
- Easy to access
- Meets NEC requirements
- Corrosion-proof



ProSTEP™ System Components



4 Float Switch Assembly

- Provides level control
- Quick-release stem
- Adjustable float collars
- Variety of floats, float arrangements



6 Effluent Pump

- Life of 25+ years with routine cleaning
- Lasts 3–4 times longer than conventional effluent pumps
- Minimum 24-hour run-dry capability
- Easy to service in the field
- Lightweight — about 25 lb (11 kg)
- Noncorroding stainless steel construction
- UL and CSA listing for wastewater applications
- A variety of pump power/sizes available; low power costs
- Five-year warranty available

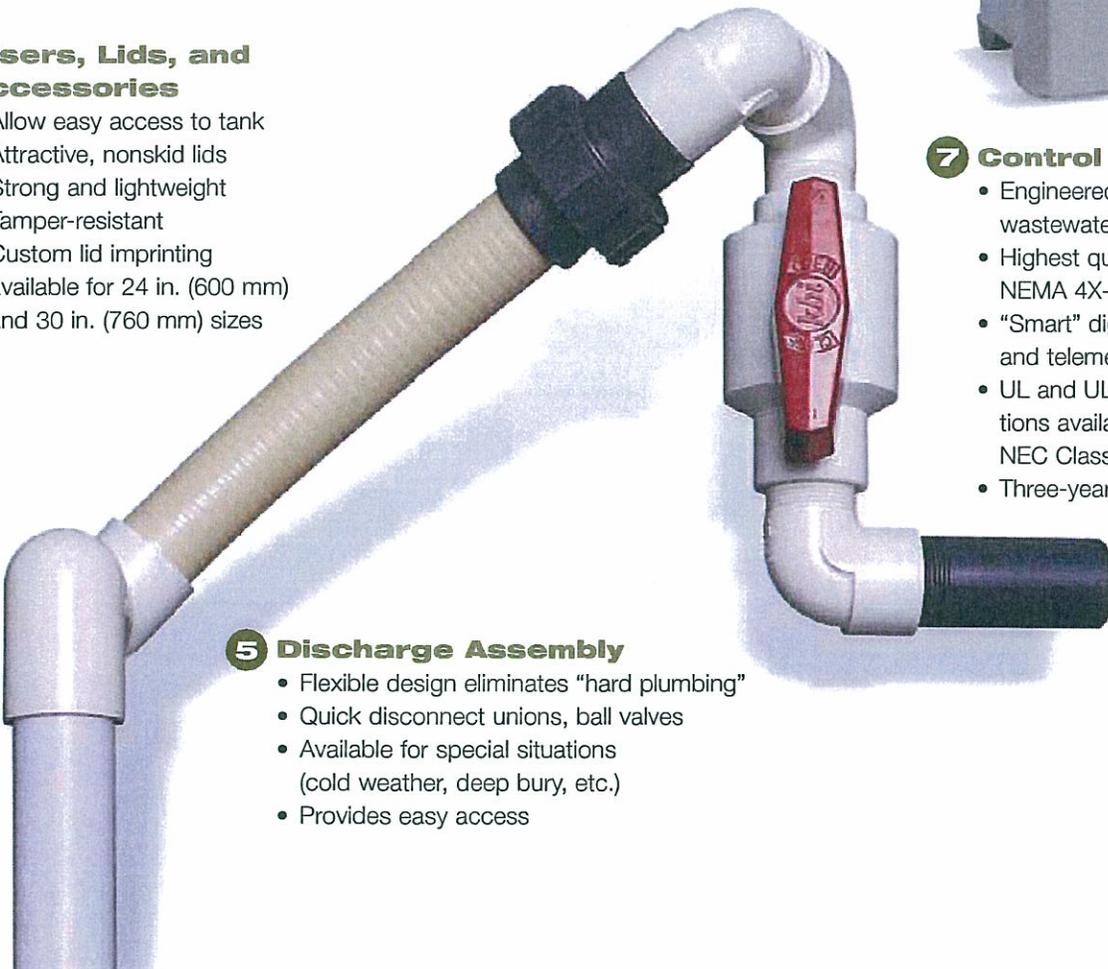


7 Control Panel

- Engineered specifically for wastewater applications
- Highest quality “touch safe” components, NEMA 4X-rated enclosures
- “Smart” digital programmable panels and telemetry panels available
- UL and UL-C listed; standard configurations available to meet requirements of NEC Class I, Division 1 or 2
- Three-year warranty

3 Risers, Lids, and Accessories

- Allow easy access to tank
- Attractive, nonskid lids
- Strong and lightweight
- Tamper-resistant
- Custom lid imprinting available for 24 in. (600 mm) and 30 in. (760 mm) sizes



5 Discharge Assembly

- Flexible design eliminates “hard plumbing”
- Quick disconnect unions, ball valves
- Available for special situations (cold weather, deep bury, etc.)
- Provides easy access

Design, Engineering, and Support

Unmatched Technical Support

When you specify, purchase, install, or service Orenco products, you tap into a wide range of technical support services.

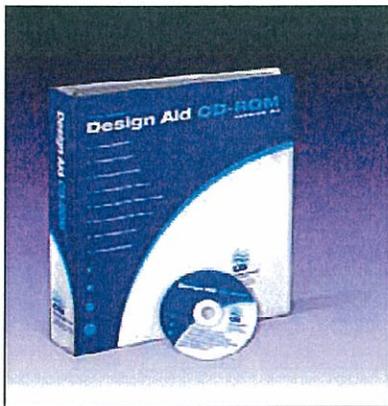
Distributor Network

Orenco's products are available from about 200 different Distributor locations. Distributors stock products, provide customer service, and help with system design, product takeoffs, ordering, shipping, and more. For a list of stocking Distributors, go to www.orenco.com and click on "Distributor Locator."



Orenco Technical Sales and Engineering

If there isn't a Distributor in your region, Orenco's Tech Sales and Engineering staff provide professional customer service, including plan reviews. When you call our toll-free number for information and assistance, you'll talk to a wastewater specialist with practical experience in effluent pumping system design, construction, and maintenance.

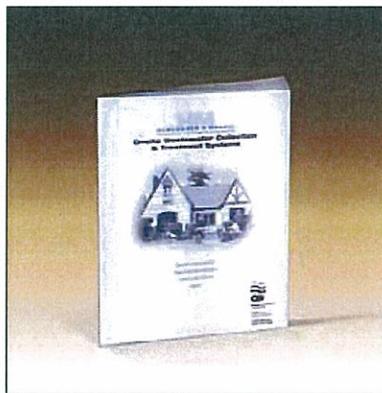


Design Aid CD-ROM

Our Design Aid CD-ROM saves layout and drafting time. The CD-ROM includes more than 200 scaled AutoCAD® and PDF drawings and our exclusive Pump Select™ software that provides fast, error-free hydraulic calculations for pump sizing. It also includes our General Specifications document, as well as media gradation charts for use when designing sand and gravel filters.

Supportive Literature

Each ProSTEP™ Effluent Pumping System comes with installation and maintenance instructions. There's also a Homeowner's Manual for the property owner, with Do's and Don'ts for preventive maintenance. Spec sheets, product sheets, and additional color brochures are also available, by request.



Web Sites

Orenco maintains two Web sites

- www.orenco.com includes an extensive document library and lets you e-mail questions and view/print product and system information round-the-clock.
- www.vericomm.net (coupled with our VeriComm® telemetry control panels), allows password-holders to manage alarms and monitor/control their systems remotely. (See our online demo on the home page; no password required.)

ProSTEP™ Effluent Pumping Systems

ProSTEP™ Protects, Transports, Filters

More than twenty years ago, Orenco Systems®, Inc. pioneered and packaged the modern filtering pump vault for onsite wastewater collection and treatment. Today, more than 100,000 ProSTEP Effluent Pumping Systems are in service all over the world. They transport and filter wastewater from watertight septic tanks and dosing tanks, protecting “downstream” lines, drainfields, and other treatment systems. The pump vault’s patented* Biotube® filter has several times the capacity of other filters and removes about two-thirds of suspended solids, on average.

“Easy Access” Design Aids Maintenance

The pump vault’s “easy access” design allows service providers to remove the Biotube® filter cartridge without pulling the pump or vault. And the float assembly’s quick-release float stem and adjustable float collars make it easy to remove and adjust.

Quality Components Outlast Others

ProSTEP™ Effluent Pumping Systems are superior in quality and outlast other brands. Constructed of stainless steel, thermoplastic, and fiberglass, they’re corrosion-resistant and durable, reducing lifetime system costs.

Advanced Controls Available

For a modest incremental cost, advanced control panels are available . . . control panels that give peace of mind to property owners, system designers, contractors, service providers, and regulators. MVP digital programmable panels allow easy, accurate setting of multiple parameters and the use of one type of float for all functions. VeriComm® remote telemetry panels are coupled with the Web-based VeriComm® Monitoring System, which verifies and communicates system operation round-the-clock, while remaining invisible to the homeowner.

Easy access design



* Covered by U.S. patents
4,439,323 and 5,492,635.
Foreign patents pending.

“We’ve had more than 500 Orenco ProSTEP Effluent Pumping Systems in operation since 1987. They’re simple, dependable, and easy to maintain.”

Larry Garwood
Diamond Lake Water & Sewer District
Newport, Washington

ProSTEP™ Effluent Pumping Systems



Orenco Systems is owned and managed by engineers who develop wastewater systems that work — systems based on sound science.

Clockwise from left:
Eric Ball, P.E., Jeff Ball, P.E., Hal Ball, P.E.,
(front) Terry Bounds, P.E.

Carefully Engineered by Orenco

Orenco Systems has been researching, designing, manufacturing, and selling leading-edge products for small-scale wastewater treatment systems since 1981. The company has become an industry leader, with about 235 employees and with more than 100 distributors and dealers representing most of the United States, Canada, New Zealand, and parts of Europe and South America. Our systems have been installed all over the world.



Your health is our priority. At Orenco Systems, we are committed to "Changing the Way the World Does Wastewater®."



Orenco has a maintenance division and an environmental lab and employs more than a dozen civil, electrical, mechanical, and manufacturing engineers. Orenco's systems are based on sound scientific principles of chemistry, biology, mechanical structure, and hydraulics. As a result, our research appears in numerous publications, and our engineers are regularly asked to give workshops and offer trainings.

Distributed by:



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World Does Wastewater®*

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