



Environmentally friendly vacuum sewerage systems for decentralized wastewater treatment.



Vacuum Collection For Decentralized Sewage

The Qua-vac Vacuflow® system is a clean and highly efficient system for environmentally acceptable sewerage disposal. Compared with conventional sewerage systems, vacuum sewerage systems construction and installation is considerably simpler and cheaper.

In addition, the Vacuflow system is virtually maintenance free. It operates within a closed and leak-proof vacuum network. Because of this, the environment will benefit too. No sewage can escape and pollute surrounding areas.

Customer Need

As an alternative to costly gravity sewer systems, or high maintenance pumping systems, Newterra offers Vacuflow, a proven, environmentally friendly vacuum collection system from Qua-vac. In particular the technology addresses:

- Replacement for failing septic systems
- Areas with high water table such as:
 - Islands, marinas, coastal communities, lake front developments
- Areas with deep trench construction constraints:
 - Bedrock
 - Small villages, ribbon developments, remote camps
 - Rolling terrain
- Environmentally sensitive or water protection areas
- New urban development in rural areas
- Retrofit of existing vacuum system components



The Vacuflow/Newterra Solution

Sewage flows by gravity to a Collection Chamber buried in the ground; gravity connection to house (up to 4), or to business, condominium or apartment. A central vacuum system applies a constant vacuum to the piping network, buried in shallow trenches in a sawtooth fashion that allows liquid to be lifted when necessary. Advantages of this system are:

- Lower investment cost due to:
 - Small pipe sizes
 - Shallow, narrow trenches
 - No manholes
 - Pipe around obstacles
 - No lift stations
- No electricity except at vacuum station
 - Sewage never goes septic, low odors
 - High velocity in pipes prevents blockages and scours pipe
 - No infiltration means smaller treatment system
 - No leakage means no environmental damage
 - Build in reserve volume at home in case of power outage
 - Eliminates potential for H₂S gas hazards

The Vacuflow system is virtually maintenance-free



Environmentally-Friendly Collection Systems



VacuFlow System Components

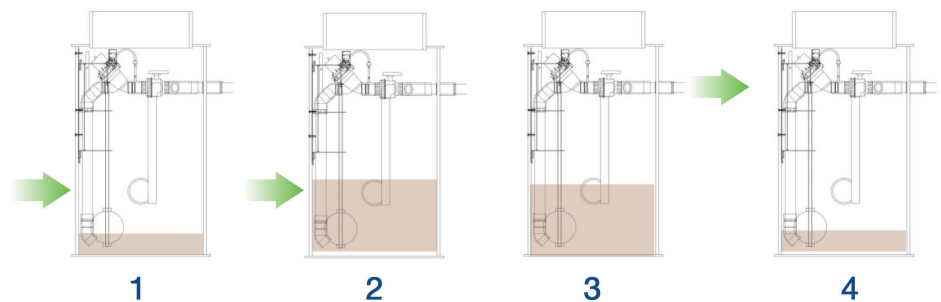
- 1 Gravity connection to house (up to 4), or to business, condominium or apartment
- 2 Collection Chamber with Interface Unit
- 3 Vacuum Connection
- 4 Sawtooth Vacuum Piping in shallow trench
- 5 Vacuum Station*
- 6 Odor control unit*
- 7 Discharge to Newterra treatment system

*may be incorporated in Newterra treatment system



VacuFlow Operation

1. Water flows by gravity to chamber. Vacuflow valve closed.
2. Start level reached, valve opens.
3. Water pulled out of chamber by vacuum, air added in exact mixture to maximize transport.
4. Stop level reached, valve closes.



Scan/Click here
to learn more Qua-vac
Sewage Technology





About Newterra

Your Partner for Life

From the first interaction, **you'll experience passionate experts** who tailor solutions based on intimacy, knowledge and partnership to meet your operational, regulatory and safety goals. These experienced water experts uniquely question, listen, advise then deliver solutions and schedules – on time and on budget.

With 150 years in water treatment and tens of thousands of installations across every continent, you'll enjoy security and peace of mind from a **trusted partner for life.**

40+

Professional
Engineers

200+

Employees
Worldwide

TENS
OF

THOUSANDS

Installations
Worldwide

A Spectrum of Wastewater Treatment Solutions

Newterra's customized solutions combine extensive market knowledge with our industry-leading ability to harness and modernize the best available water treatment technologies. **Experience are better approach.**

**Domestic Wastewater | Industrial Wastewater | Potable Water | PFOS & Emerging Contaminants
Industrial Water | Industrial Stormwater | Remediation | Aquaculture**

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