Developer Brochure

AIRVAC®

The World Leader in Vacuum Sewer Technology

www.airvac.com

AIRVAC offers benefits to developers and the people who buy their homes.

Cost Savings

An AIRVAC Vacuum Sewer System uses small diameter pipe laid in shallow trenches with no manholes. As a result, the cost to install a vacuum system is almost always less than a gravity flow system. Once installed, the savings continue as the tight system does not allow infiltration and inflow (I&I). This is especially important when treatment is being provided by others on a cost per gallon basis.

State-of-the-Art Technology

AIRVAC Vacuum Sewer Systems are used throughout the world and are rapidly becoming the sewer system of choice for many. This leading edge technology conserves natural resources, is environmentally friendly and allows system operators to avoid direct contact with raw sewage as well as man-entry into confined spaces.

Deferred Costs

Some costs of an AIRVAC system can be deferred or even passed on to the lot purchaser. For instance, vacuum valves do not have to be purchased initially. The developer can either defer this expense until a property is sold, or pass it on to the lot owner by including it in the selling price.

Overcome Site Conditions

An AIRVAC Vacuum Sewer System can be used to overcome site difficulties such as flat land, sandy soils, high groundwater, and rock, which are common in new developments. Because the horizontal and vertical direction of our sewer mains may be changed easily, developers have more flexibility in site configuration and lot layout.

More Lots Available for Sale

One AIRVAC vacuum station typically replaces five or six lift stations necessary in a gravity-flow system, resulting in additional lots available for profitable home sites. An added benefit is the elimination of hard to sell lots that are located adjacent to these lift stations.

Environmentally Friendly

AIRVAC Vacuum Sewer Systems conserve and protect natural resources. Shallow, narrow trenches and absence of manholes result in less surface disruption during construction, compared to the deep, wide trenches that are typical of a gravity system. Tight by nature, AIRVAC Vacuum Sewer Systems are not affected by I&I nor can sewage leak into the environment.

Easily Expandable

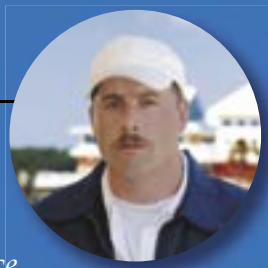
Adding new phases to a development can be quite challenging with gravity sewers. The movement of large equipment and deep open trenches increase the dirt, danger and disruption to the existing neighborhood. These negatives can be minimized with vacuum technology. The net result is a decrease in the liability for harm to people and property and an increase in their quality of life.

Universally Accepted Technology

Typically, developers install sewer systems that will be operated and maintained by others, such as a City. With a proven track record in the municipal market, AIRVAC is available to help the developer explain the features and benefits to those who ultimately must maintain the system.

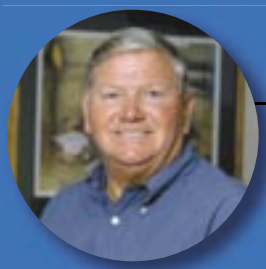
Lee Ginn
Field Superintendant
Chesapeake Bay Contractors
Cape Charles, VA

"It's a much simpler installation process than a gravity sewer. Because of the flat terrain around Cape Charles, this was a perfect application for vacuum sewer technology."



Bill Powell
Operations Manager
Town of Cape Charles, VA

"AIRVAC's Vacuum Sewer System requires less maintenance than a gravity system and is safer, since we never come in contact with raw sewage."



Richard Foster
President
Baymark Construction
Virginia Beach, VA

"I recommend developers take a look at the AIRVAC system. It can save you time and money and improve quality."

Don MacLennan, P.E.
President
Engineering Resources Group, LLC
Virginia Beach, VA

"Installing sewers in areas with flat terrain and high ground water present numerous challenges. AIRVAC's Vacuum Sewer System provided my client with the solution to overcome these challenges."

Our clients are pleased with AIRVAC Vacuum Sewer Systems and support.

Vacuum mains use small diameter pipes installed in shallow, narrow trenches, which means easier, less expensive installation and expansion.

Lightweight valve pits, capable of bearing traffic loads, are easily installed and typically serve two or more homes.

To ensure system integrity, vacuum tightness tests are conducted daily during the construction period.

Eliminate multiple lift stations- fewer lots needed for lift stations mean additional lots available for sale.

AIRVAC assembles and tests the mechanical and electrical equipment of the vacuum station at its factory. The skid-mounted equipment is delivered to the job site and placed into the vacuum station building.

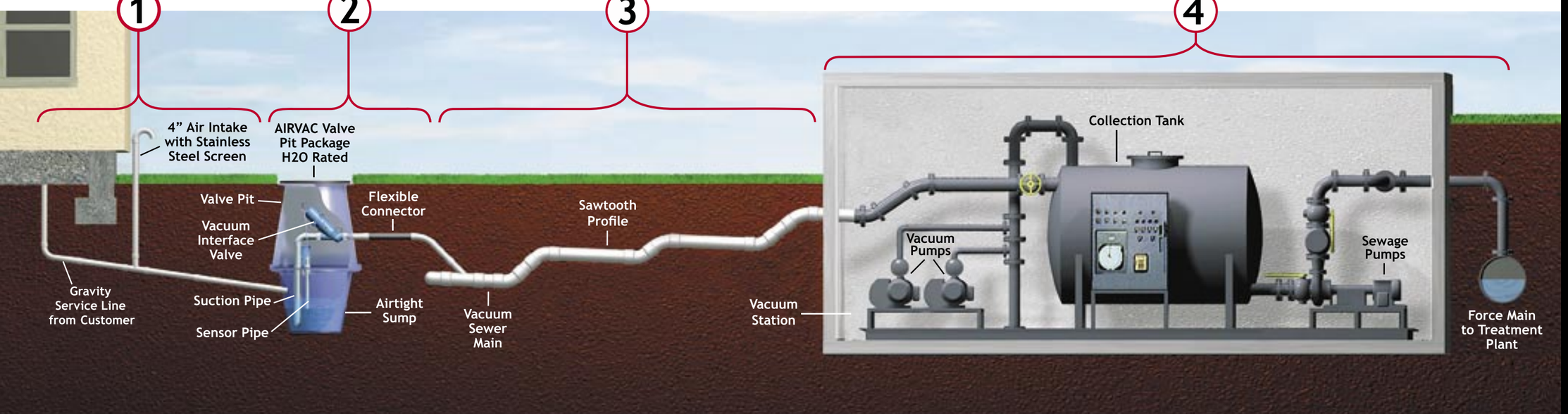
The vacuum station building that houses the mechanical and electrical equipment is designed to fit the characteristics of the neighborhood.

Vacuum stations provide a clean, safe environment for maintenance personnel as all sewage is completely contained within the collection tank.

AIRVAC's sealed system protects environmentally sensitive areas.

How it Works:

1. A traditional gravity line carries wastewater from the customer to an AIRVAC valve pit package.
2. When 10 gallons of wastewater collects in the sump, the AIRVAC valve opens and differential pressure propels the contents into the vacuum main.
3. Wastewater travels at 15 to 18 fps in the vacuum main, which is laid in a sawtooth fashion to insure adequate vacuum levels at the end of each line.
4. Wastewater enters the collection tank. When the tank fills to a predetermined level, sewage pumps transfer the contents to the treatment plant via a force main. Vacuum pumps cycle on and off as needed to maintain a constant level of vacuum on the entire collection system.



AIRVAC provides excellent customer support and service.

AIRVAC's system offers developers unique technical advantages.

No Manholes Required

This maintains natural beauty and eliminates inflow and infiltration.

Minimum Surface Disruption

Minimal disruption to existing community.

Shallow Main Lines

Ease of installation and expansion.

Eliminate Multiple Lift Stations

One vacuum station can replace 5 or 6 lift stations.

More Lots Available for Sale

Fewer lots needed for lift stations mean more desirable lots are available for sale.

Expandability

Service may be easily extended into future construction phases.

Tight System

Protects environmentally sensitive areas.

Let us help you with a free system layout & budget estimate.

For more information go to www.airvac.com/info

Tampa Office: 200 Tower Drive • Suite A • Oldsmar, FL 34677 • 813-855-6297
Home Office: 4217 N. Old U.S. 31 • P.O. Box 528 • Rochester, IN 46975 • 574-223-3980