



**Airvac**

The **world leader** in vacuum sewer collection technology.

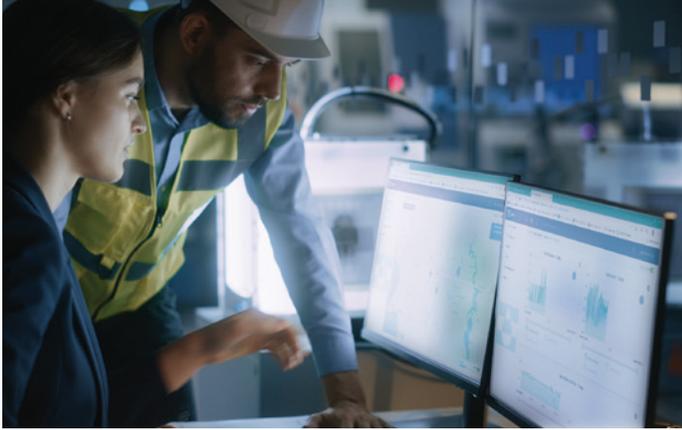
**Providing a  
greener  
alternative  
to failing  
gravity and  
septic systems.**



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Aqseptence Group



**Airvac**



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# Vacuum sewer collection is an environmentally sound system

## **Airvac's vacuum sewer collection system is sealed from valve pit to vacuum station.**

Airvac's completely sealed vacuum sewer collection system prevents infiltration and inflow of groundwater from the valve pit to the vacuum station, protecting the environment from exfiltrating wastewater. It is one of the most environmentally sound solutions available.

For vacuum sewer collection systems, if leaks were to occur, they would not result in sewage spills. Instead, air would enter the pipe and be immediately detected. Standard equipment in a vacuum station automatically notifies operating personnel if this occurs.

## **Energy conservation**

Airvac vacuum sewer collection systems only require one power source, located at the vacuum station. Because vacuum valves are pneumatically operated, no power source is required by the homeowners.

A single vacuum station can often serve the same area that would traditionally require 6-7 lift stations, minimizing the building footprint and reducing energy use.

Because the vacuum system is closed from the valve pit to the vacuum station, inflow and infiltration are eliminated. Energy is not expended transporting or treating excess water from storm events and treatment plant demand is eased.



**Airvac** - Providing a greener alternative to failing gravity and septic systems.



**Just because  
a road is less  
traveled does  
not mean it's not  
worth taking.**





# Vacuum sewer collection systems are better for the community ...

## Smaller construction footprints

Airvac vacuum sewers use smaller diameter pipes and shallower burial depths than conventional gravity sewer systems. The resulting narrow, shallow trenches greatly reduce excavation, dewatering efforts, surface disruption and eliminate the dangers associated with larger, deeper trenches. The use of smaller fuel operated equipment also reduces the carbon footprint.

Reducing the construction footprint minimizes disruption, helping conserve existing natural areas and protecting habitats and biodiversity.

The horizontal and vertical flexibility allow construction crews to avoid disruption of environmentally sensitive areas. Field changes can easily be made, and unforeseen underground obstacles can be avoided by going over, under, or around them.

## Enhanced community well being

Vacuum sewer collection systems produce high scouring velocities, reducing the risk of blockages in the pipes. There are no drainage fields with vacuum sewer systems like there are with septic tank systems. This eliminates raw sewage from surfacing in yards, backing up into homes, or spilling out into the environment.

Vacuum stations are typically designed to blend into the aesthetics of the neighborhood. Each vacuum station has a standby generator to provide uninterrupted service during power outages.

Ease of installation, less disruption, and the elimination of multiple lift stations maintain the natural beauty of the community.





The longest  
road out is  
the shortest  
road home.

## ... and better for operators.

### **Less hazardous for system operators**

With an Airvac vacuum sewer collection system, operators do not come in contact with raw sewage or work in confined areas, minimizing the risk of exposure to viruses, bacteria, parasites or harmful gases such as methane and hydrogen sulfide.

With our newest technologies, they also experience noise and heat reduction at the vacuum pump stations. This provides for a more safe and comfortable work environment.

Vacuum stations have cleaner indoor air quality due to the lack of pollutant entry into the building and no odor. Bio-filters use microorganisms and natural media to keep noxious gases from being exhausted into the air.



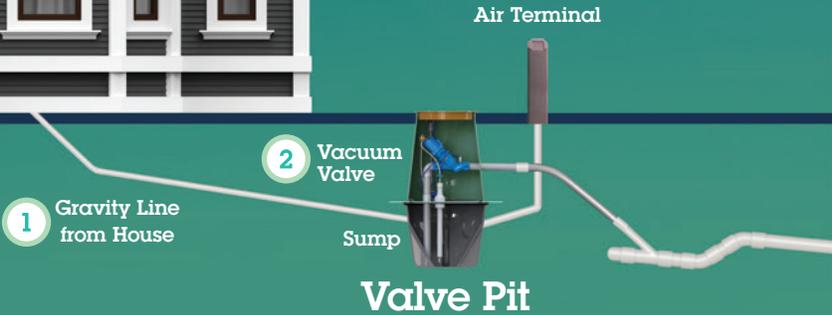
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to watch a short case study video.



# How an Airvac Vacuum Sewer Collection System Works



Airvac



**1** A traditional **gravity line** carries wastewater from the customer to an Airvac **valve pit** package.

**2** The Airvac **vacuum valve** opens when 10 gallons of sewage collects in the sump and then differential pressure propels the contents into the **vacuum main**.

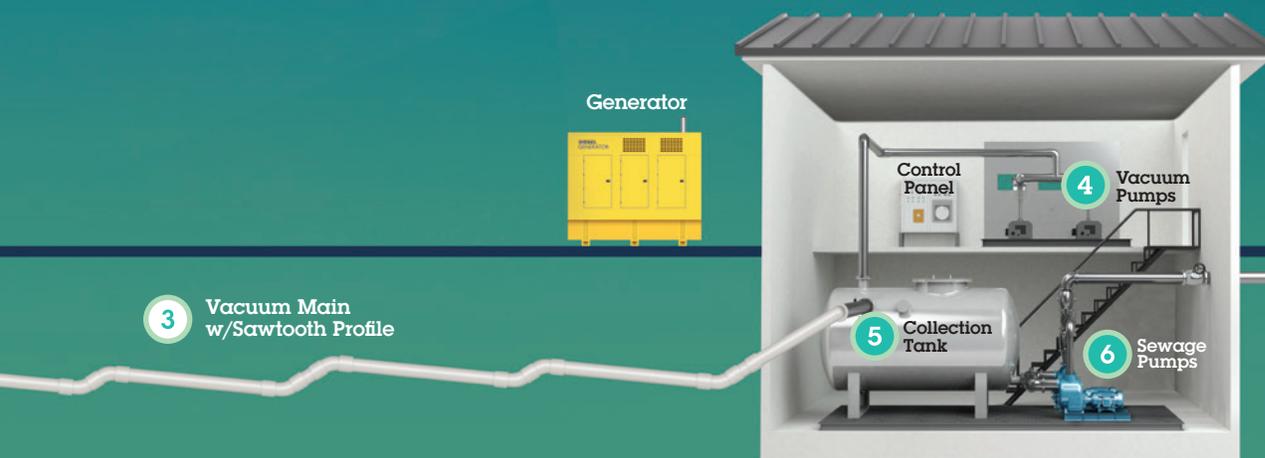
**3** Wastewater travels at 15 to 18 fps in the **vacuum main**, which is laid in a sawtooth fashion to insure adequate vacuum levels at the end of each line.



Airvac - Providing a greener alternative to failing gravity and septic systems.

Airvac's completely closed vacuum sewer collection system prevents infiltration and inflow of groundwater from the valve pit to the vacuum station, protecting the environment from exfiltrating wastewater.

Vacuum stations are equipped with a back-up generator to allow for uninterrupted operation even when service outage is experienced.



## Vacuum Station

- 4 Vacuum pumps** cycle on and off as needed to maintain a constant level of vacuum on the entire collection system.
- 5** Wastewater enters the **collection tank** and fills to a predetermined level.
- 6 Sewage pumps** transfer the contents to the treatment plant via a force main.

# Airvac is:

## A Global Company

There are more than 325,000 homes in North America, South America, Europe, Africa, Middle East, Asia, and Australia connected to an Airvac Vacuum Sewer System. With a valve cycling every 10 gallons this equates to approximately 8 million Airvac valve cycles per day.

## Focused on Innovation

When it comes to innovation in the vacuum sewer collection market, Airvac is second to none. As a pioneer of vacuum sewer technology, we have over twenty patented industry firsts. Our focus is to not only improve our products, but to advance vacuum technology worldwide.

## Customer Centric

Airvac is not only focused on making superior products, but also on developing long-term customer relationships. We do this by providing support and service every step of the way, including assistance with the planning, design, construction, and operation of your vacuum sewer system.

The **world leader** in vacuum sewer collection technology.

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# Airvac Vacuum Sewer Collection Systems are:

- Cost-effective, Efficient and Reliable
- Environmentally Friendly
- Safe for Operators
- Less Disruptive to Communities
- Severe Weather Ready



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Let's discuss your solution!

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We provide **FREE** cost estimates & system layouts.



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