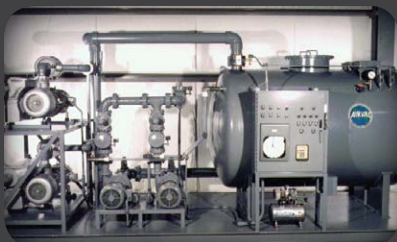
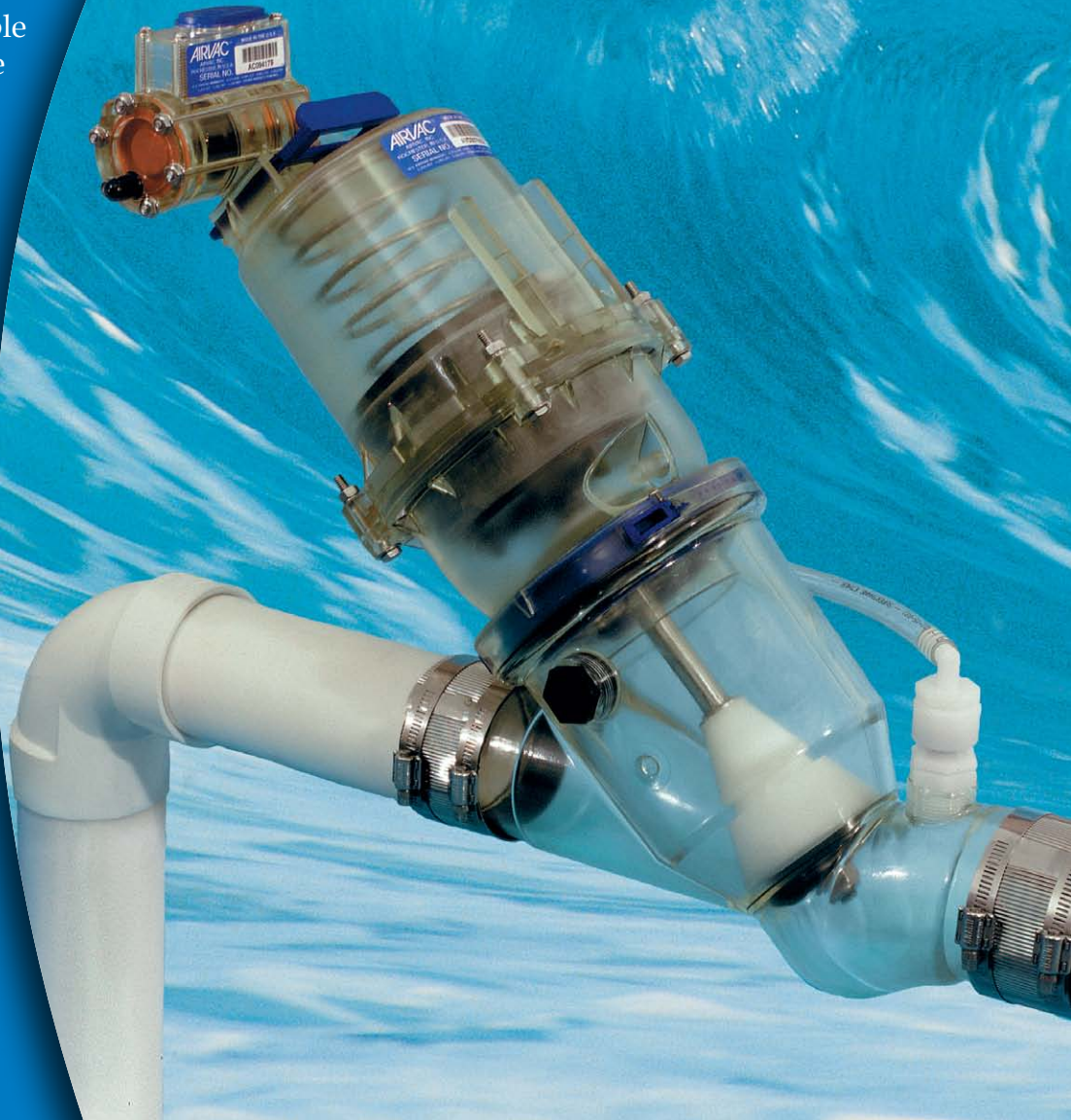


Industrial

AIRVAC vacuum sewage and condensate collection systems are a cost-effective, inexpensive alternative to traditional gravity or pump systems providing low maintenance, efficient and reliable industrial sewage, process waste or condensate collection. As the industry leader and expert in vacuum sewage collection technology, AIRVAC offers vacuum toilets, vacuum sump assemblies for process waste and condensate, and vacuum station equipment as well as our expertise in design, construction and operation of vacuum sewage collection systems.

The combination of top quality products and superior customer support separates AIRVAC from its competitors.



www.airvacenvironmental.com

AIRVAC[®]

ENVIRONMENTAL GROUP

Vacuum Toilet and Wastewater Collection Systems

Unlike gravity flow, the AIRVAC vacuum collection system uses differential air pressure for the removal and transport of waste and wastewater from vacuum plumbing fixtures and interface assemblies through a vacuum piping network to a vacuum central assembly.

The AIRVAC vacuum collection system consists of three main components:

■ **Collection Fixtures**

Multiple points of collection for wastewater such as vacuum toilets, sump assemblies to recover condensate, and evacuation units.

■ **Piping Network**

Transports the wastewater from fixtures and collection points to the vacuum central via above ground piping systems. The piping network is normally under a vacuum of 16" to 20" Hg created by vacuum pumps located at the vacuum central. When a sufficient volume of sewage accumulates at a collection fixture, the associated valve will cycle. Differential pressure forces liquid waste and a predetermined amount of air into the piping network before closing.

This liquid and air mixture then joins the liquid and air which is at rest within low points in the system and propels it forward. If no additional valves are opened during this period, the waste that has not exited the piping to the collection tank will once again come to rest at downstream low points. Another valve cycle, at any location upstream of the low spot, will cause this sewage to continue its movement toward the vacuum central.

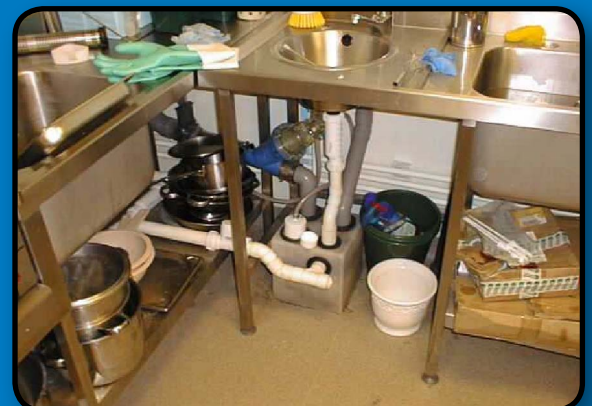
■ **Vacuum Central**

Creates and maintains vacuum pressure within the tank and piping network, and discharges the collected waste to the treatment plant or cooling towers in the case of condensate. At the vacuum central, the sewage is stored in the system's collection tank until a sufficient volume accumulates, at which time pumps discharge it to a waste treatment plant.

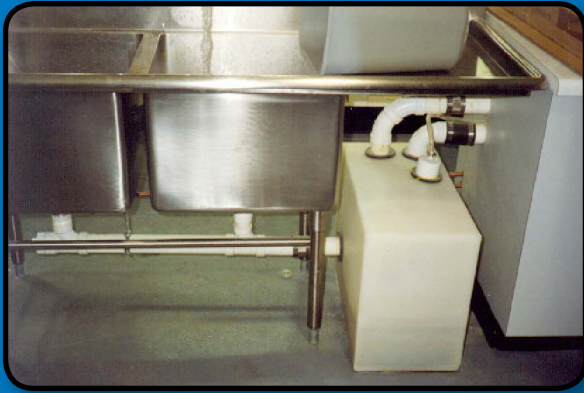
AIRVAC 2-inch valve and vacuum piping installed in tight location with wastewater discharging up to overhead piping.



AIRVAC 2-inch valve & 10 gallon sump assembly installed in kitchen collecting wastewater from hand sink and food prep sink.



Industrial Applications



AIRVAC 2-inch valve & 25 gallon sump assembly installed in kitchen collecting wastewater from pot sink and dishwasher.

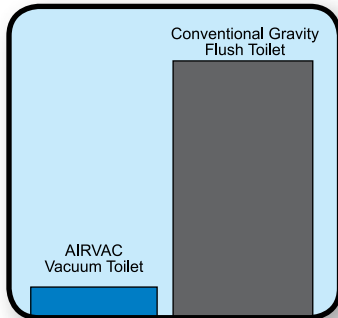


AIRVAC 1,000 gallon vacuum collection station with dual vacuum and discharge pumps.

- Existing industrial or manufacturing buildings with embedded gravity drainage piping is inadequately sized to accept the sanitary and process waste generated by a proposed addition or remodeling project.
- With leaking buried gravity piping system that has failed and replacement requires extensive damage to building or excessive construction duration.
- The proposed building drain terminates well below the existing sanitary sewer and installation of a lift station is impractical.
- To recover condensate from refrigeration and/or HVAC units for cooling tower make-up or there is a need to recycle fluids quickly.

AIRVAC - A Viable Collection Solution

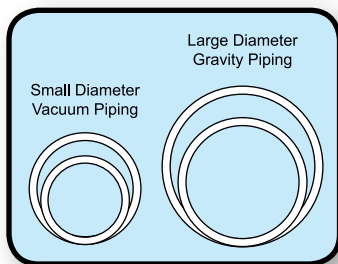
Pharmaceutical • Chemical Processing • Process Water Applications



The Benefits of Vacuum

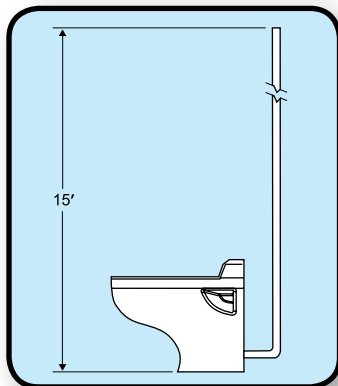
■ Low Volume Flush

The AIRVAC vacuum toilet uses significantly less water when compared to a conventional gravity flush toilet. Each flush requires only 3 pints of water resulting in reduced water usage and subsequently reducing waste.



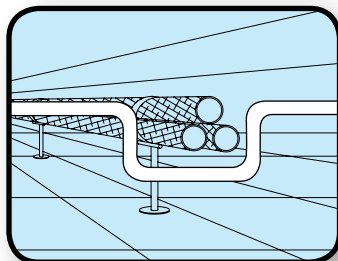
■ Small Diameter Piping

Vacuum sewage collection uses smaller diameter piping when compared to conventional gravity piping providing lower cost of material and labor for installation, and also reduces piping weight.



■ Vertical Lift Capability

Unlike a conventional gravity flush system, the AIRVAC vacuum toilet can flush horizontally or upward as well as downward. This allows for flexibility in design layout in new construction and opens up many new possibilities in expansion projects.



■ Piping Independent of Slope

Vacuum sewage piping allows for flexibility in the routing of pipes around stationary objects such as air ducts, bulkheads, other utilities and equipment.

Call 1-800-247-8229 for a system review and cost estimate.

Your Area Representative

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