

# EVAC

## VACUUM TOILET SYSTEMS FOR CORRECTIONAL FACILITIES



Increase Security and Control  
Reduce Maintenance  
Save Construction Time and Costs  
Reduce Water and Sewer Costs



# OVERVIEW: EVAC VACUUM TOILET SYSTEM

An EVAC Vacuum Toilet System is an engineered system which uses differential air pressure to transport sanitary waste water from plumbing fixtures, such as vacuum toilets, sinks and showers, through a vacuum piping network to the vacuum collection tank. The vacuum collection tank maintains operating vacuum pressure throughout the piping network and controls the collection and discharge from the system.

## EVAC ADVANTAGES:



Typical Vacuum Combi Toilet

### Vacuum Toilets

Willoughby correctional stainless steel fixtures are available through EVAC. When the flush button for the toilet is pressed, the flush valve opens allowing atmospheric pressure to force sewage from the toilet bowl through the piping, and on toward the vacuum collection tank. At the same time, the toilet rinses and refills the bowl. Large objects such as bed sheets or towels cannot be forced into the piping system due to the limited discharge diameter and the normally closed discharge valve.



### Increased Security and Control

Less maintenance means fewer maintenance personnel in secured areas. Correctional Officers can shut off individual or blocks of toilets prior to shakedowns, eliminating the toilet as a means of disposing contraband or weapons. The vacuum toilet makes flushed contraband irretrievable and also eliminates communication and passing of contraband between cells.

### Reduced Maintenance

EVAC virtually eliminates main line blockages by restricting abusive materials from entering the piping system at the toilet. Attempted abuse is isolated in the cell at the toilet fixture so that disciplinary measures can resolve future attempts.

### Reduced Construction Time and Costs

The smaller diameter vacuum piping system can be installed horizontally or vertically. Waste piping is typically routed above the slab, minimizing the need for costly and time consuming trenching. This allows flexibility in the layout, design, and installation: saving time and costs on both new construction and remodeling projects.

### Reduces Water and Sewage Cost

The EVAC Vacuum Toilet uses less than 1/2 gallon per flush. Water acquisition and sewage disposal cost can be dramatically reduced.

Examples:

250 bed facility = 2 Million Gallons saved each year!

1000 bed facility = 8 Million Gallons saved each year!

## EVAC COMPONENTS:

### Vacuum Collection Tanks for Large and Small Facilities

A series of standard Vacuum Collection Tank models provides a range of system capacities suitable for new or remodeled facilities from fewer than 20 toilets to more than 2,000 toilets. All Standard Vacuum Collection Tank Models feature hands-off controls which automatically maintain system vacuum, and manage the sewage collection and discharge modes.



Large Vacuum Tank Assembly

### EVAC Engineering and Design Service

EVAC Engineering will quickly assist your mechanical consultant/contractor in layout, design, and sizing of an EVAC Vacuum Toilet System. From preliminary concept, design development, pre-bid, construction, and final punch list, EVAC is there to help.



Typical Mechanical Chase

### Vacuum Interface Valves

A variety of EVAC Vacuum Interface Valves are used to integrate the drainage from traditional sanitary fixtures such as showers, sinks, drinking fountains, etc. Like the vacuum toilet, these simple interface valves operate pneumatically and require no electrical connections.

### EVAC Performance

The functional and sanitary performance of EVAC Vacuum Toilets meet with ANSI A112.19.16 Hydraulic Water Requirements for Water Closets and Urinals. EVAC has also obtained approvals from UL, CE, IAPMO, NSF and ISO 9001.

Mahoning County Jail



"The original design using the EVAC Vacuum Toilet System was primarily due to high water/sewer costs and improved security. Our experience (installed in 1995) is that the predicted savings are very much in line with the original estimate... and if I had the choice of an EVAC Vacuum toilet System over gravity in my next jail, I would choose EVAC."

-Ed Drennen, Facilities Maintenance Manager, Mahoning County Jail

Salt Lake County Adult Detention Complex



"Our Evac System has been operating successfully since mid 2000. We know we are saving a tremendous amount of water and saving cost in sewage treatment as well. We have also seen a reduction in maintenance calls and the system is designed to allow easier maintenance access. Having worked at other facilities, I can see the advantages of using EVAC versus a gravity system. It all translates to the bottom line."

- Ed Gagon, Maintenance Director, Salt Lake County Adult Detention Complex

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## THE GLOBAL LEADER IN VACUUM TECHNOLOGY



EVAC is the world's leader in vacuum drainage systems in commercial buildings and the marine industry. EVAC North America identifies and combines the finest worldwide talent in vacuum technology.

EVAC has a worldwide sales and service network as well as manufacturing facilities in North America, Europe, and Asia. For more information on EVAC Vacuum Drainage Systems, please contact an EVAC representative at the toll free number listed below.

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