

CLEANTECH SOLUTIONS for correctional facilities



*Cleantech Solutions.
Anywhere.*

Vacuum collection

Evac is the world's leading provider of integrated water and wastewater management systems for the building industry. Our wide range of solutions, products and technologies offer a comprehensive one-stop offering to meet all your needs.

Evac vacuum drainage solutions and toilet applications are ideal for correctional facilities. They offer a short payback time, thanks to their low water consumption. Choosing vacuum toilets for correctional facilities enables flexible cell design and increases security, while reducing maintenance and in-cell intervention. Water and sewage costs are also reduced.

- Increase security and control
- Reduce maintenance needs
- Save construction time and costs
- Reduce water usage and associated costs



The benefits of choosing Evac

A vacuum collection system uses differential air pressure to transport wastewater from plumbing fixtures such as vacuum toilets, sinks, and showers, through a vacuum piping network to a collection tank. The tank maintains vacuum pressure throughout the piping network and controls collection and discharge.

Reduced water consumption

Depressing the flush button on vacuum toilet opens the valve, allowing atmospheric pressure to force waste from the toilet bowl through the piping network to the vacuum collection tank. During the flush sequence the bowl is also rinsed and refilled. A flush sequence uses just 1,5 liters / 0.4 gallons of water.

Increased security and control

Large objects such as towels or bedsheets cannot be flushed due to the limited discharge diameter 45 cm / 1 ½ ft and the discharge valve, which is closed unless the toilet is being flushed. Individual units or blocks of toilets can be shut off prior to shakedowns to prevent the disposal of contraband. Anything that is flushed and does manage to pass through the discharge valve is irretrievable. The valve also prevents toilets and their associated piping from being used as a means of communication.

Reduced maintenance

Less maintenance means fewer personnel in secure areas. Evac vacuum toilet systems virtually eliminate line blockages by restricting the entry of debris into the piping network via the toilet bowl. Evac systems also include an inline grinder that grinds waste into small particles before it enters the collection tank.

Reduced construction time and costs

The piping network can be installed horizontally or vertically and is typically routed above the slab, minimizing or even completely eliminating the need for trenching, core drilling, or saw cutting. Wastewater can be pulled as high as 7 m / 24 ft through a vertical riser. This provides flexibility in layout, design, and installation, which saves construction time and costs in both new-build and remodeling projects.

Example water savings

250-bed facility

7,5 million liters / 2 million gallons of water savings a year.

1000-bed facility

30 million liters / 8 million gallons of water savings a year.



Dual tank modular system

Evac system components

Vacuum collection tanks for facilities large and small

Evac offers a wide range of vacuum collection tanks in various sizes, providing the necessary system capacities for everything from fewer than 20 toilets to more than 2,000. All Evac tanks feature hands-off controls that automatically maintain the system vacuum pressure while managing collection and discharge. Systems are available in either palletized or modular configurations.

Vacuum interface valves

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

Evac engineering and design services

Evac's engineering team can assist customer engineers, contractors, and consultants with system sizing, layout, and design from initial concept right through to installation and commissioning.

Functional and sanitary performance

High quality, heavy duty stainless steel toilet fixtures supplied by Evac partner. The vacuum toilets comply with the ANSI A112.19.16 Hydraulic Water Requirements for water closets and urinals.

Evac has also obtained certifications from UL, CE, IAPMO, NSF, and ISO 9001:2015, 14001:2015 and OHSAS 18001:2007.

Find our contact information at www.evac.com/contacts



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