

DEVELOPER SUPPORT SERVICES



cloa-ci-na [kloh-see-na]

Origin:

Ancient Rome; cloaca [sewer]

- 1. Roman goddess of the sewers
- 2. Manufacturer and purveyor of package wastewater treatment plants and equipment

Cloacina, LLC is a manufacturer and purveyor of stainless steel package wastewater treatment plants and equipment located on the Central Coast of California. It is owned and managed by a family of licensed wastewater operators, project managers and maintenance mechanics, now four generations deep. Pride in craftsmanship. Unparalleled ingenuity. Environmental protection. At the heart of Cloacina, these are the values driving the design and production of each package wastewater treatment plant and piece of equipment. All products are proudly manufactured in America.

Over the past decade, Cloacina has become a trusted resource for commercial and residential developers of both small and large-scale projects. Our Design Team specializes in helping Clients with stalled development plans find water and wastewater treatment solutions that will allow their projects to move forward.

Cloacina manufactures package wastewater treatment plants designed specifically for developments that are capable of treating domestic or industrial wastewater or a combination of both. They are energy efficient, easily maintained, occupy small footprints and can reclaim 100% of the treated effluent for irrigation and sanitation purposes.

Developers often find that connecting their projects to downstream municipal treatment plants is expensive and that they can treat water on-site for costs equivalent to or less than connection fees and surcharges. On-site treatment turns treated effluent into an asset and commodity for the development.

DEVELOPER SUPPORT SERVICES

- Engineer/Manufacture/Build/Operate (EMBO) services
- Cloacina can act as a liaison between the Client and regulatory agencies governing the project
- Accurate project budgets for design and feasibility
- Short and long-term rental plants
- Lease and purchase options

- Scalable products that can phase treatment system construction with the development
- Expedited construction schedules
- Water and wastewater consulting
- Value engineering



WHAT SETS OUR PRODUCTS APART?

304 stainless steel tankage and equipment skids come standard on all models

Our plants are designed to last decades rather than years

Every Cloacina wastewater treatment plant and piece of equipment undergoes rigorous Factory Acceptance Testing (FAT) of the plumbing, mechanical, electrical and controls systems prior to shipping Models are available for installation in small footprints, remote locations and extreme weather

Plants ship as factory-assembled, complete systems not individual pieces of equipment that have to be assembled for the first time on-site

Cloacina plants are easy to install, operate and maintain

PACKAGE WASTEWATER TREATMENT

REVOLUTIONIZED

MEMPACTM-M (MUNICIPAL)

Designed to meet strict municipal project and discharge requirements, the MEMPAC-M has the longest life cycle of any of Cloacina's membrane bioreactors and is designed to reclaim 100% of the treated effluent.



MEMPAC™-E (ECONOMY)

Designed for low flow ranges and budgetconscious clients, this model has standard designs and economized equipment selections while incorporating most of the revolutionary features of the MEMPAC line.



MEMPAC-X (EXTERNAL TANKS)

The MEMPAC-X is a cost-effective solution for low flow domestic applications with stringent discharge requirements. It treats 5,000 GPD standard and can be expanded to treat up to 25.000 GPD with additional external tanks.



MEMPACTM-I (INDUSTRIAL)

The MEMPAC-I includes the screening, primary treatment, activated sludge and membrane clarification necessary to stabilize and treat the fluctuating influent strength and extreme loading of industrial waste.



DRYPACTM

The DRYPAC Aerated Sludge Handling System processes Waste Activated Sludge (WAS). All necessary chemical and polymer addition equipment is included and integrated into the controls system.



MEMPAC-S (SCALPING)

The MEMPAC-S takes domestic wastewater out of the gravity sewer, treats it to reuse standards and then discharges it for irrigation purposes, industrial or commercial water usage or recharges groundwater using direct injection.



MEMPACTM - MINI

The MEMPAC-MINI is a complete stainless steel wastewater treatment system for low flow and re-use applications. A compact version of other MEMPAC models, the typical footprint for the equipment skid is less than forty square feet.



PRIMEPACTM

The PRIMEPAC is designed to significantly decrease BOD, balance pH and increase the capacity of an existing pond or treatment system without significant capital expenditures and operating expenses.



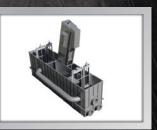
MEMPACTM-H (HYBRID)

The MEMPAC-H is a hybrid package designed for both municipal and industrial clients that need wastewater treatment equipment but either already have or intend to supply their own tankage and piping.



HEADPAC™

The HEADPAC Headworks System removes inorganics from waste streams through a variety of screening options. It arrives as a complete system ready to be installed with minimal site work.



CEMPAC™

Cloacina's CEMPAC incorporates Silicon Carbide (SIC) membranes into a package sludge thickening system. Clients can now thicken sludge without the use of polymers and their downstream effects!



TO LEARN MORE ABOUT CLOACINA'S **REVOLUTIONARY PRODUCT LINE VISIT:**

CLOACINA.COM/CLOACINA-LINE-CARD

REPRESENTATIVE PROJECTS

GUNNER RANCH WEST - MEMPAC-M250



INFLUENT PARAMETERS

| AVERAGE DAILY FLOW | 250,000 GPD |
|---------------------------|-------------|
| BIOCHEMICAL OXYGEN DEMAND | 400 MG/L |
| TOTAL SUSPENDED SOLIDS | 400 MG/L |
| INFLUENT TYPE | MUNICIPAL |

EFFLUENT QUALITY

| BIOCHEMICAL OXYGEN DEMAND | < 10 MG/L |
|---------------------------|-----------|
| TOTAL SUSPENDED SOLIDS | < 10 MG/L |

INFLUENT PARAMETERS

| AVERAGE DAILY FLOW | 250,000 GPD |
|---------------------------|-------------|
| BIOCHEMICAL OXYGEN DEMAND | 350 MG/L |
| TOTAL SUSPENDED SOLIDS | 350 MG/L |
| INFLUENT TYPE | MUNICIPAL |

EFFLUENT QUALITY

| BIOCHEMICAL OXYGEN DEMAND | < 10 MG/L |
|---------------------------|-----------|
| TOTAL SUSPENDED SOLIDS | < 10 MG/L |

TESORO VIEJO - MEMPAC-M250



MILLERTON LAKE - MEMPAC-M50



INFLUENT PARAMETERS

| AVERAGE DAILY FLOW | 50,000 GPD |
|---------------------------|------------|
| BIOCHEMICAL OXYGEN DEMAND | 400 MG/L |
| TOTAL SUSPENDED SOLIDS | 350 MG/L |
| INFLUENT TYPE | MUNICIPAL |

EFFLUENT QUALITY

| BIOCHEMICAL OXYGEN DEMAND | < 10 MG/L |
|---------------------------|-----------|
| TOTAL SUSPENDED SOLIDS | < 10 MG/L |