

PACKAGE SEWAGE TREATMENT PLANTS

A wide range of sewage treatment plants for residential communities, hotels and industries are available from Hydrex. Hydrex plants are compact, low cost, odor free, noise free, efficient, easy to construct and simple to operate and maintain. There is a Hydrex package plant to suit the needs of as few as 100 people to as many as 10,000.

A typical 180 cu. m/day sewage treatment plant, net area 90 sq. m



Economical, Efficient, Easy-to-Install, Simple-to-Operate

Treatment Plant Description

A typical Hydrex package sewage treatment plant consists of a number of components including:

- Pretreatment, such as screening and grit removal.
- Aeration, which takes place in an aerated, well mixed tank of sufficient size to provide adequate retention for the biological oxidation of organic matter.
- Clarification, or the effective separation of clear effluent from biological sludge, together with a means of recycling the settled out sludge back to the aeration and/or removing it from the system.
- Post treatment, such as chlorination.
- Sludge digestion.
- Optional flow metering system (when required by local authorities).
- Optional raw sewage lift station (when gravity flow sewer is below ground).



*400 cu. m/day sewage treatment plant
(Net area 195 sq. m)*

Process Tank Construction

Outstanding among the many unique design features associated with our package plants is the incorporation of above ground steel process tanks. Hydrex has supplied many plants with glass coated, bolted steel tanks. The glass-fused-to-steel tanks are ideally suited as process tanks and have been designed to solve the problems associated with traditional concrete structures such as weathering, cracks, leakage and maintenance.

The plants are extremely easy to install, requiring the use of semi-skilled labor only, and can be completed within a relatively short period of time. The plants are constructed on a simple concrete foundation. The hard, impervious finish will not deteriorate, even after decades of service.



*70 cu. m/day sewage treatment plant
(Net area 57 sq. m)*

IN THE MARKET FOR THE MOST COST EFFECTIVE AND RELIABLE WASTEWATER TREATMENT SYSTEMS AVAILABLE?

From even the most basic design information, Hydrex can design and supply economical, power efficient and highly reliable package sewage treatment systems for industrial, commercial and residential applications throughout the Asia region.

Our plants provide efficient and economical treatment even under the most adverse conditions. Maintenance costs are minimized because of our unique plant designs, ruggedly built equipment and corrosion resistant materials. Hydrex plants incorporate the most advanced equipment and are easy to operate. An audio-visual training program is provided for the training of inexperienced operators as well.

Our clients include some of the most respected multinational and regional companies, an association we are extremely proud of. The hundreds of treatment plants installed by Hydrex and in operation for many years are proof of our leadership in this area.

In regards to package sewage treatment plants in particular, Hydrex's clients include:

PT. Kaltim Prima Coal, Indonesia

Hydrex supplied over a dozen package sewage treatment plants, with capacities ranging from 70 to 400 m³/d, to that large mining corporation over the years, sure proof of total customer satisfaction.

Motorola, Inc.

Hydrex designed and supplied a highly compact, 360 m³/d package plant for Motorola's new assembly and test facility in the Philippines.

Duracell, Inc.

Hydrex designed and supplied a fully assembled rectangular steel package plant for one of Duracell's manufacturing facilities in China. Satisfaction with our plant led them to purchase the design and specifications for a similar package plant for another of their factories in India.



A fully pre-assembled fabricated steel package sewage treatment plant of 30 cu. m/day which was commissioned within just three months of order placement.

Design Considerations

Proper design of a sewage treatment plant system requires careful consideration of many factors that affect system sizing and performance. The basic wastewater characteristics and effluent requirements must first be established. Design can be completed with sufficient knowledge of the following parameters:

A. Type of Establishment

- | | | | |
|---|-------------------------|--------------------------|-------|
| <input type="checkbox"/> Residential - Ordinary | Population | _____ | |
| <input type="checkbox"/> Residential - High Class | Population | _____ | |
| <input type="checkbox"/> Factories | } No. of Resident Staff | _____ | |
| <input type="checkbox"/> Offices | | } No. of Shift Employees | _____ |
| <input type="checkbox"/> Schools | | } No. of Meals Served | _____ |
| | | Per Day at Canteen | |

B. Sewage Treatment Plant Influent

- | | | |
|-----------------------------------|---|--|
| Flow, Daily Average | _____ | m ³ /d |
| Flow, Peak Two Hour Duration | _____ | m ³ /d |
| BOD Concentration | _____ | mg/l |
| Ambient Temperature Summer/Winter | _____ / _____ | °C |
| Power Supply | 3 Phase / _____ | Volt / _____ Hz |
| Sewage Delivery Method | <input type="checkbox"/> Below Ground Gravity Sewer | or <input type="checkbox"/> Above Ground Pressure Pipe |

C. Sewage Treatment Plant Effluent

- | | | |
|-------------------------------------|-------|------|
| BOD Concentration | _____ | mg/l |
| SS (Suspended Solids) Concentration | _____ | mg/l |
| Other Requirements (please specify) | _____ | |

Please put a “√” in the appropriate box. Items A and C must be filled in entirely to allow us to design an appropriate treatment plant. If information for Item B is unavailable, please ignore.

FOR FURTHER INFORMATION

A full range of water and wastewater treatment systems and equipment are available from Hydrex. For further information, please contact us or our authorized agent.

Authorized Agent:

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