

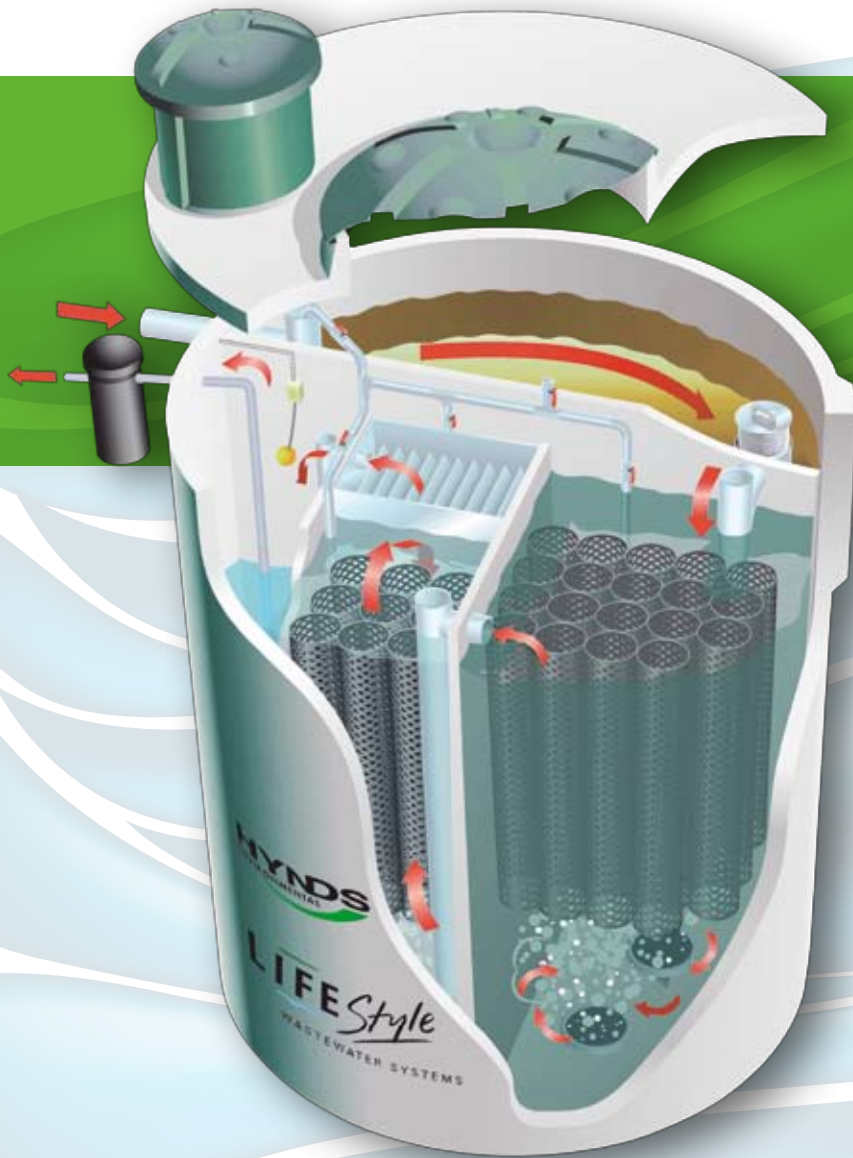
HYNDS

ENVIRONMENTAL

ENVIRONMENTAL
PROTECTION
SYSTEMS

DOMESTIC WASTEWATER SYSTEMS

*Highest quality
sewage
treatment
systems from
the name
you can trust*



protecting our environment

HYNDS AERATED WASTEWATER SYSTEMS

Hynds Lifestyle Systems are an elite range of aerated wastewater systems that offer environmentally sensitive alternatives to the septic tank.

Hynds aerated systems utilise proven Submerged Aerated Filtration (SAF) technology. This advanced process produces a clear, odourless liquid suitable for sustainable irrigation of landscaped gardens, bushes or trees.

Several models of Hynds Lifestyle Systems are available to offer an optimal solution for your property. Hynds Environmental engineers design each system to suit the application with assurance of superior wastewater treatment and land application. Hynds Lifestyle Systems are modular and can be sized for any application. The system can also be expanded at a later date, if required.

Once installed, Hynds Lifestyle Systems can be easily landscaped to blend in to the surrounding environment.

High performance, low running costs and superior service make Hynds Lifestyle Systems a compact and economical solution for all household wastewater treatment.

Hynds Environmental is part of the Hynds Group of companies, providing quality products to New Zealand homes since 1973. Hynds is a family owned company with branches throughout New Zealand. With superb technical support and dedicated sales staff, Hynds offer quality, service and guaranteed backup for your Hynds Lifestyle System.

Advantages and Features

- Highest quality concrete construction
- Independently tested and certified to exceed all New Zealand Standards
- Manufactured to ISO9001 quality standards
- Genuine 24-hour emergency capacity
- No cross contamination of chambers
- Simple IP rated control and alarm system
- Quiet and economic operation
- Visually unobtrusive
- Low maintenance
- Internal recycling process increases the performance and extends the pump-out frequency of the system.
- 24-hour back-up service

Applications

Typical sites for Hynds Lifestyle Systems include rural or residential areas not connected to the sewer mains.

The use of drip line irrigation make Hynds Lifestyle Systems perfect for areas with poorly draining soils, high water tables, limited space and steeply sloping sites. Failed septic tanks or trenches can also be replaced or enhanced with a Hynds Lifestyle System to prevent further damage to the environment.

Installation

The installation of a Hynds Lifestyle System will be completed by a trained Hynds Environmental technician or licensed installer. Installation of the treatment system and irrigation field is typically completed within day.



Performance

The unique design of Hynds Lifestyle Systems gives a level of performance unrivalled by traditional disposal methods.

All Hynds Lifestyle Systems are designed to exceed New Zealand Standards for disposal of wastewater and are guaranteed to meet the following criteria:

- BOD₅ : Suspended Solids
< 20 : 20 mg/l
- Ammonia < 5 mg/l
- > 99% faecal coliform removal
- Total Nitrogen < 25 mg/l
(Lifestyle 'Advanced')
- Total Nitrogen < 15 mg/l
(Lifestyle 'Ultimate')

Quotation

New Zealand houses are unique. To ensure maximum performance, a wastewater system must be designed to suit the specific site conditions and the household's lifestyle.

Hynds Environmental offers a free site visit to assess the requirements of the homeowner and develop an understanding of the location, landscaping, and drainage requirements. An accurate quotation can then be provided for the recommended Hynds wastewater system based on this design information.

Servicing

Hynds Environmental offers a service contract to homeowners to ensure the ongoing performance of all Hynds Lifestyle Systems. Two visits per annum are recommended to ensure compliance with resource consent requirements.

24-hour back-up support is offered with each service contract to ensure the homeowner's peace of mind.

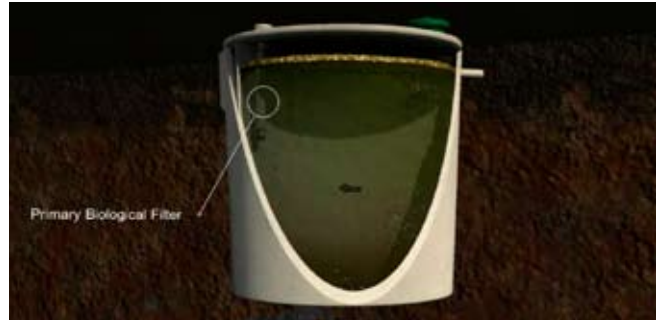


HYNDS AERATED WASTEWATER SYSTEMS

How it works



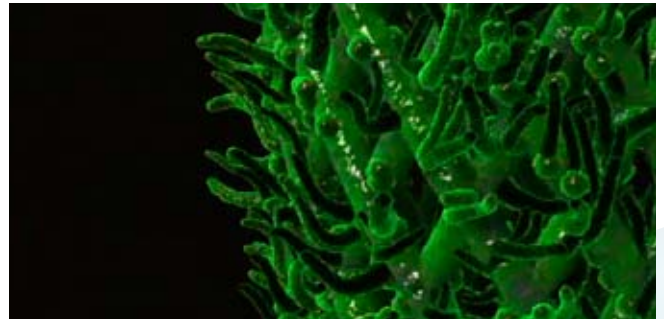
1. Below ground installation, visually unobtrusive.



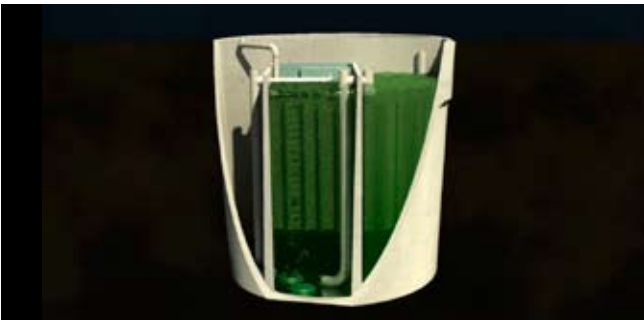
2. Primary treatment tank – A primary anaerobic settling process with full height walls to prevent cross contamination.



3. First stage aeration/filtration – air is infused into the water and the aerobic effluent passes through biomass filter media.



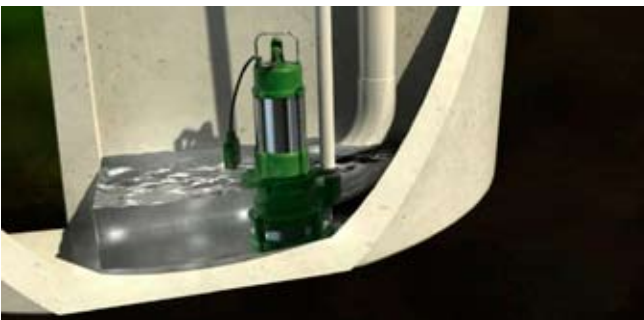
4. Biological treatment – living organisms cover the lattice structure of the filter media and cleanse the wastewater.



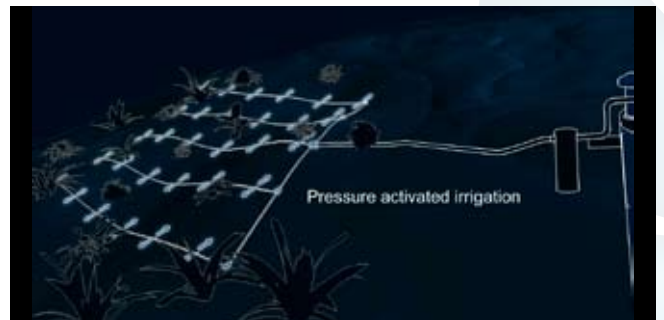
5. Second stage aeration/filtration – the aeration/filtration process is repeated to increase the performance of the system.



6. Clarification – a laminar plate separator removes any remaining solids and recycles this material back to the primary chamber.



7. Pump-out – a float activated pump sends clear water through a fine particle filter to the dispersal field.



8. Dispersal – dispersal of the effluent to the environment is typically through a pressure compensated dripline system.

What is the right Hynds system for your site?

Hynds Lifestyle 'Advanced'

The Hynds Lifestyle 'Advanced' System is designed for an individual house of up to eight occupants. Incorporating the entire treatment process in a single, premium quality concrete tank, the Hynds Lifestyle 'Advanced' System offers high performance, reliability and peace of mind.

- Household size – up to 8 occupants
- Maximum daily flow – 1800 l/day
- Number of tanks – 1
- Total tank capacity – 8500 litres

Hynds Lifestyle 'Ultimate'

The Hynds Lifestyle 'Ultimate' System has the same specifications as the Hynds 'Advanced' system but has been upgraded to maximise Total Nitrogen (TN) removal. Tested and certified at the Environment Bay of Plenty Rotorua Trials, the Hynds 'Ultimate' removes TN to below 15 mg/l.

- Household size – up to 8 occupants
- Maximum daily flow – 1800 l/day
- Number of tanks – 1
- Total tank capacity – 8500 litres

Hynds Lifestyle 'Compact'

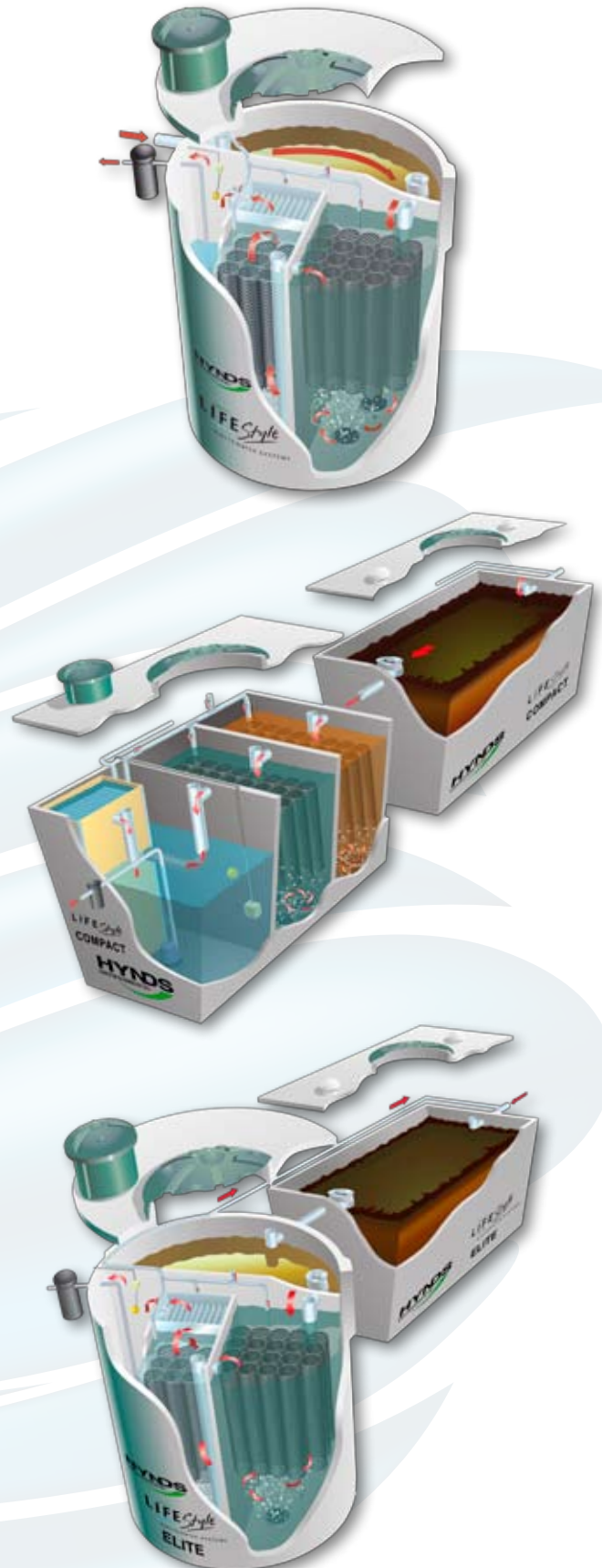
The Hynds Lifestyle 'Compact' System separates the primary and secondary treatment processes into two tanks. The secondary treatment system is ideal for retrofitting to existing septic tanks or the entire system can be installed as a dual tank system. This system is also suitable where site constraints restrict the use of a single-tank system.

- Household size – up to 8 occupants
- Maximum daily flow – 1800 l/day
- Number of tanks – 2
- Total tank capacity – 8000 litres

Hynds Lifestyle 'Elite'

The Hynds Lifestyle 'Elite' System is designed for the larger home or multiple dwellings. This system separates the primary and secondary treatment processes into two large tanks. The increased tank volumes also offer protection against high surge flows that can restrict the performance of the system.

- Household size – up to 15 occupants
- Maximum daily flow – 3000 l/day
- Number of tanks – 2
- Total tank capacity – 13000 litres



HYNDS MBR WASTEWATER SYSTEMS

The Hynds Membrane Bioreactor (MBR) System is a unique wastewater treatment process utilising the latest state-of-the-art membrane technology. By combining suspended growth biological treatment with immersed membrane technology, an effluent quality of the highest standard is produced.

MBR technology was developed as a result of a Japanese government initiative to produce exceptionally high quality wastewater treatment plants with small footprints. Initially designed for large-scale wastewater applications, MBR technology is now available for domestic applications.

The effluent quality produced by the Hynds MBR System is typically better than 5:5:5 BOD₅ : Suspended Solids : Ammonia. An effective pore size of 0.01 microns (ultra filtration) removes viruses and all other pathogenic micro-organisms so further disinfection is not required.

The Hynds MBR System is unmistakably the most advanced wastewater treatment system available. The unrivalled effluent quality produced by this system makes it ideal for sites with sensitive receiving environments or for discerning homeowners who simply want the best.

Performance

The unique design of Hynds MBR Systems gives a level of performance unrivalled by traditional treatment methods.

Hynds MBR Systems treat wastewater at an ultra filtration level, ensuring the following standards are met:

- BOD₅ : Suspended Solids : Ammonia < 5:5:5 mg/l
- faecal coliforms < 5 per 100ml
- effluent is rendered free of pathogens, viruses and bacteria



Advantages and Features

- Most advanced wastewater technology available
- Viruses are removed through ultra filtration so no further disinfection is required
- Genuine 24-hour emergency capacity
- No cross contamination of chambers
- Highest quality concrete construction giving no joints and no leaks
- ISO9001 quality manufactured
- Simple IP rated control and alarm system
- Quiet and economic operation
- Visually unobtrusive
- Low maintenance
- 24-hour back-up service
- Simple retrofit for upgrading existing systems

Applications

Typical sites for Hynds MBR Systems include rural or residential areas not connected to the sewer mains.

The unsurpassed level of treatment offered by Hynds MBR Systems means the effluent produced may be discharged to sites with sensitive receiving environments.

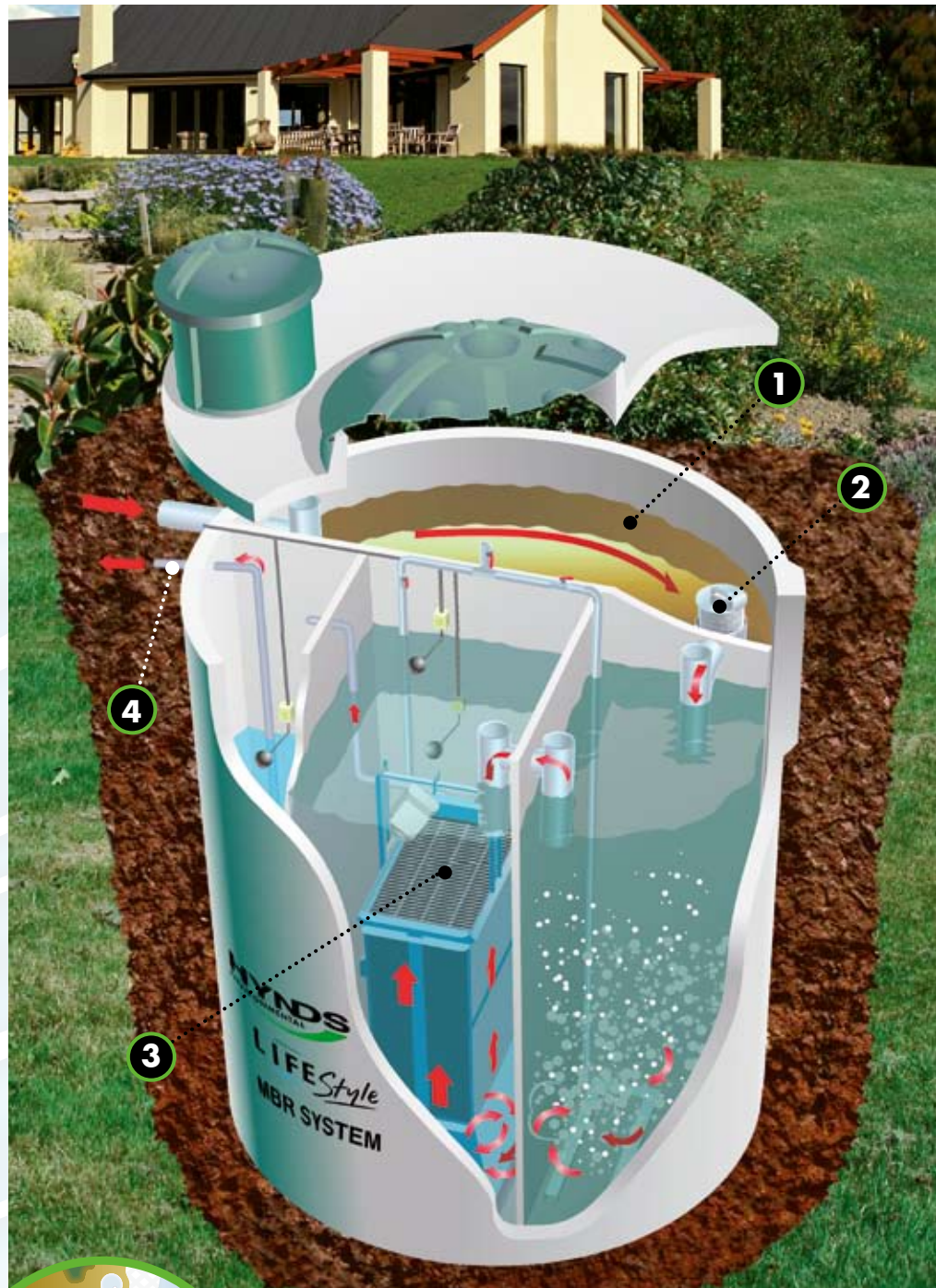
Sizing and Design

To ensure maximum performance, a wastewater system must be designed to suit the specific site conditions and the household's lifestyle. Hynds Environmental has a variety of domestic MBR models to treat wastewater from small to very large households.

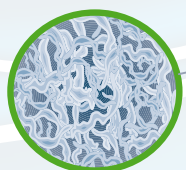
	Household Size	Max. Daily Flow
Standard	6 occupants	1200 l/day
Extreme	12 occupants	2400 l/day
Custom Design	Contact Hynds Environmental	

How it Works

1. **Pre-treatment chamber**
A primary anaerobic settling process.
2. **Biological disc filter**
Filtration to remove any remaining larger particles.
3. **Membrane Bioreactor filtration chamber**
The wastewater is aerated and permeates through the MBR module, cleansing the wastewater to an ultra-filtration level.
4. **Irrigation pump chamber**
A submersible pump disperses the treated effluent through a pressure compensated drip irrigation system.



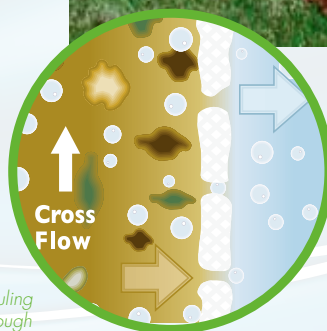
Membrane Panel



MicroStructure

During operation, the membrane panels provide an effective pore size of 0.01 micron. This is within the ultra filtration range.

Cross flow prevents the membrane surface from fouling while water permeates through the membrane.



The result is clean disinfected water.



ADVANCED PRIMARY TREATMENT SYSTEMS

Hynds Envirotank

The Hynds Envirotank is an advanced septic tank system for the collection and pre-treatment of household wastewater in areas without sewage reticulation.

Hynds Envirotanks use a primary anaerobic settling process to produce an effluent quality suitable for disposal to field drains.

How they Work

The Hynds Envirotank is a three-chamber treatment process. The wastewater enters the system into the main primary treatment tank, an anaerobic process as used in traditional septic tanks. The effluent then flows into a secondary anaerobic chamber before passing through a biological filter into the final pump-out chamber.

The Hynds Envirotank includes an internal pump to transfer effluent to the disposal field. Alternatively the system can be fitted with a dosing siphon, provided there is adequate fall from the discharge outlet to the disposal field.

Performance

Hynds Envirotanks use a primary anaerobic treatment process to significantly lower both the suspended solids and the BOD₅ of the wastewater. The resultant effluent is suitable for disposal to field drains.

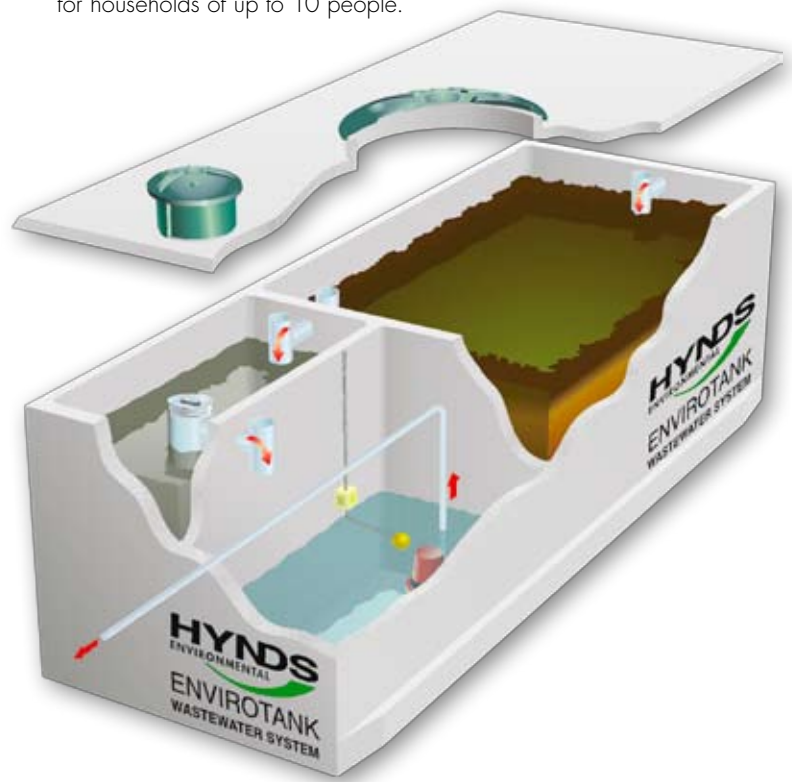
Advantages and Features

The Hynds Envirotank features significant improvements over the conventional single-chamber septic tank, including:

- improved effluent quality
- efficient and easy maintenance
- a longer lifespan and reduction in the size and cost of the disposal system
- genuine 24 hour emergency capacity
- single tank installation
- ease of upgrade to include secondary treatment if required

Sizing and Design

The Hynds Envirotank has a 5000-litre capacity, suitable for households of up to 10 people.



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