



Smart Sewage Solutions P/L

Wastewater Treatment Systems
Concrete & Poly Water Tanks

P O Box 3006
West Ipswich QLD 4305

Krystel Kleer ADV Series Advanced Secondary Treatment Nutrient Reduction

The **Krystel Kleer ADV Series** treats your wastewater to an **Advanced Secondary** level.

They also **reduce nutrients and phosphates**.

ADV5000 for up to 10 persons

ADV6000 for up to 15 persons

Primary Treatment

The first stage of treatment is to separate the solids from the liquids. The solids (mainly toilet wastes) remain in the first compartment where a digestion process takes place. The digestion is accelerated by the presence of anaerobic micro-organisms that multiply rapidly under ideal conditions and ensure that the offensive faecal solids are turned into an inert waste.

Secondary Treatment

Aeration

The subsequent treatment stages are mainly concerned with the aeration of the liquid wastes. Once again, microbes present in these liquids are used to assist in the aeration process. The micro-organisms are called aerobes and will thrive and multiply in the presence of oxygen, so it is important that a constant air supply is being maintained at all times. The air is supplied from an air pump attached to the system.

Clarification

Following aeration, the liquid wastes are allowed to settle under quiescent conditions. Any solid particles suspended in the aerated effluent will settle out and are returned automatically to the first or second treatment stage. Although it looks reasonably clean, the clarified water may still contain pathogens which will have to be removed.

Disinfection

The bacteria are removed by the **chlorine disinfection** while in the chlorine chamber.

Chlorine disinfection will ensure the final effluent meets the criteria set by regulating bodies prior to irrigation to your land application area.

Nutrient Removal

The aerated, clarified and disinfected water contains natural nutrients such as phosphates and nitrates, which can pose a problem in certain conditions. The **Krystel Kleer ADV Series** reduce the nutrient concentration, limiting potential damage to the surrounding landscape and waterways.

The NEW systems on the block !



These home owners have landscaped around the treatment tank.

Warranties

Structure	Warranty
Concrete Tank	15 years
Internal Baffles (concrete)	15 years
Fittings	
Pipework (PVC etc)	15 years
Fixing (Stainless etc)	15 years
Filter Media	15 years
Electrical Components	
Control Box	2 years *
Alarm Panel	2 years *
Irrigation Pump	2 years *
Aeration Pump	2 years *

* 12 month standard warranty and a further 12 month extended warranty if you renew your first year maintenance agreement with a Krystel Kleer approved service provider. Warranties apply from the date of commissioning the system for use.

Krystel Klear ADV Series ... the NEW system on the block!

Most councils require a Geotechnical Engineer Report (Site & Soil Evaluation) to be carried out prior to lodging an application to install a wastewater treatment system.

Smart Sewage Solutions Pty Ltd and its subcontractors construct the irrigation system in accordance with the geotechnical report approved by your local council.

The treated water is dispersed through irrigation lines, using the method directed by the geotechnical report. Methods of dispersal vary between local councils, ranging from above-ground heavy droplet sprinklers to pressure-compensating drippers, shallow subsurface irrigation and evapotranspiration beds.

In these ways nutrients are returned to nature via lawns and gardens. This also ensures that the area designated as your irrigation area receives the benefit of regular watering, is sustainable and environmentally balanced, and the health and welfare of the occupants and the public at large is protected (as per local authority approval).

The Best System for your Health

Krystel Klear systems treat wastewater to a level of purity unattainable by conventional septic systems. We have overcome the problems of septic systems ... with no overflow, no seepage and no environmental disadvantages such as untreated sewerage being put back into our streets, rivers or the oceans. And just as importantly, **NO SMELL.**

