

Other Environmental Solutions available from KMG Ltd



Manufactured by:



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In accordance with KMG Ltd, normal policy of product development these specifications are subject to change without notice. Manufactured by KMG Ltd.

tri-cel®

bio systems

Single & Multi-house Bio Systems

Certified to the European Standard EN 12566-3

Freephone 1800 24 25 82



The Wastewater Purification Process

1. Primary Settlement 2. Aeration 3. Final Settlement

Stage 1

Stage 1 takes place in the primary settlement chamber where the wastewater is introduced. The solids drop to the bottom and are separated from the liquid. Anaerobic breakdown now begins to occur and improves the water quality.

Stage 2

Stage 2 takes place in the aeration chamber where masses of naturally occurring bacteria inhabit specially designed filter media. These bacteria are sustained with air, which is continuously supplied from a purpose built pump in the top section of the unit. As the liquid flows through the filter media the bacteria feed on the impurities, consuming them, thus removing them from the liquid.

Stage 3

The liquid now flows from the aeration chamber into the final settlement chamber. Small quantities of bacteria known as sludge are carried with the liquid at this stage. This sludge settles towards the bottom of the final settlement chamber where a continuous sludge return system pumps back to chamber 1. The remaining treated liquid now meets the required standard to be safely passed out of the Tri-Cel® unit.

Advantages of Tri-Cel®

- EN 12566-3 European Certified
- IAB - Agrément certified 06/0208
- Easy to install
- Low maintenance costs
- Low running costs
- Easily de-sludged
- Quiet in operation
- Manhole risers available
- Site assessments to meet planning requirements
- Maintenance contracts available
- Designed and manufactured in Killarney
- Underground installation causes minimal visual impact



Irish and European Certification required for Wastewater Treatment Systems.

IAB Certificates: The Tri-Cel® Bio System is Certified by the Irish Agreement Board, IAB 06/0208 and complies with the Irish requirement of 20:30:20.

The arrival of the European Standard EN 12566-3.

The Tri-Cel® Bio Systems have successfully passed these tests and is now approved to the New European standard EN 12566-3 Small wastewater treatment systems for up to 50 PT-Part 3: Packaged and/or site assembled domestic wastewater treatment plants.

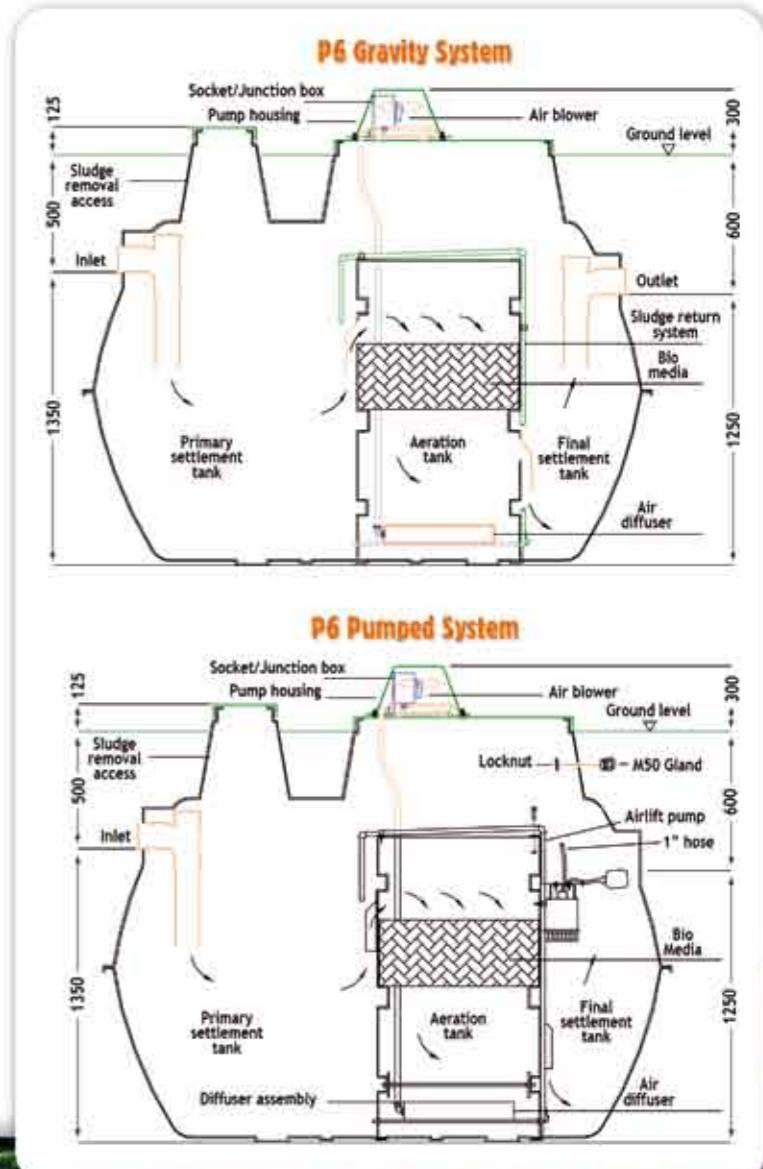
The Tri-Cel® system was placed through a rigorous 38-week test, by the certifier laboratory PIA GmbH-Testing Institute for Wastewater Technology in Aachen, Germany. The Biological tests carried out in Aachen on the Tri-Cel® system provides us the knowledge that our product is still the best in the business with a treatment efficiency of 95.7% for BOD5 and 95.4% for S:S. Structural testing (leak test, crush test & durability test) was carried out by PIA staff at our headquarters in Killarney and the range of tanks upto P50 successfully passed all of the required tests.

KMG Killarney Plastics Limited Ballyspillane Ind Est, Killarney, Co Kerry, Ireland.	
I.S. EN 12566-3 Packaged domestic wastewater treatment plant for treatment of domestic wastewater	
Product's reference code:	"Tri-Cel P6"
Material:	GRP
Effectiveness of treatment:	
Treatment efficiency ratios	BOD5: 95.7 % SS: 95.4 %
Treatment capacity (nominal designation):	
Nominal organic daily load (BOD5)	0.36 kg/d
Nominal hydraulic daily flow (QN)	1.2 m³/d
Watertightness:	Pass
Crushing resistance:	Pass
Durability:	Pass

Tri-Cel® P6 Wastewater Treatment System basic information

Treatment capacity	3540 litres
Primary treatment zone	1690 litres
Secondary treatment zone	1200 litres
Final settlement zone	650 litres
Design population	6 PE
Overall width	1640 mm
Overall length	2600 mm
Total height	1950 mm
Weight (empty)*	300 Kg
Design flow rate	1200 litres/day
BOD load	0.36 Kg/day
Inlet invert to base	1350 mm
Outlet invert to base	1250 mm
Ground level to inlet invert level	500 mm
Air blower motor rating	60 watts (minimum)
De-sludge period	1 year minimum
Thickness	6 mm (minimum)
Retention time (design case)	70 hours

* allow 400 Kg for lifting purpose



iab
Bord Agrément na hÉireann
Irish Agreement Board
Certificate no: 06/0208
Tri-Cel® Wastewater Treatment Systems

CERTIFICATE NO. 06/0208
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TRI-CEL® Wastewater Treatment System for Single Dwellings.

The Irish Agrément Board is designated by Government to issue European Technical Approvals.

Irish Agrément Board Certificates establish proof that the certified products are 'proper materials' suitable for their intended use under Irish site conditions, and in accordance with the Building Regulations 1997 to 2006.

The Irish Agrément Board operates in association with the National Standards Authority of Ireland (NSAI) as the National Member of UEAtc.

Installation of the Tri-Cel® Bio System P6

