

WASTEWATER TREATMENT

Tricel® Vitae 6-50

For single dwellings & light commercial applications

Innovative design for superior performance



What is the Tricel Vitae

Tricel Vitae wastewater treatment plants are reliable, easy to install and simple to maintain for all wastewater requirements. These highly functional plants can cater for ranges from 6 to 50 PE (Population Equivalent).

The Tricel Vitae is a Sequencing Batch Reactor (SBR) plant suitable for single dwellings and light commercial applications. SBR's use a six-stage process which treats wastewater in two distinct treatment zones known as primary and reactor chambers.

CE
up to **98.6% BOD₅**
Certified to EN12566-3

European Certification Requirements

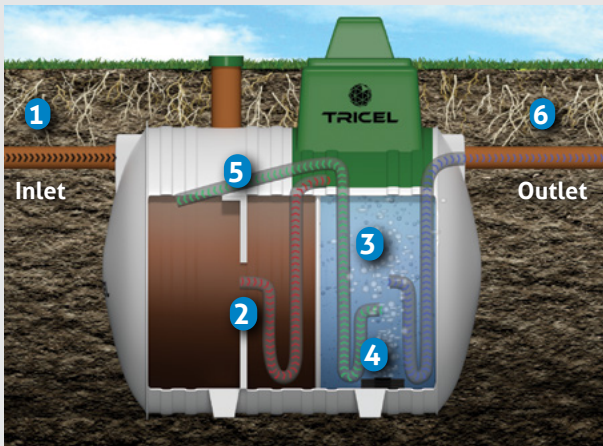
All Tricel wastewater treatment plants have been tested to European certification EN 12566-3. This certification tests all plants for strength, water tightness, durability and treatment efficiency.

Tricel Vitae wastewater treatment plants comply with all national requirements offering customers peace of mind that they are installing a fully approved plant.

How a Tricel Vitae works

Tricel Vitae plants use a simple, proven technology, consisting of six treatment stages.

1. **Inlet:** wastewater enters the primary chamber which acts as a storage chamber to hold the wastewater until it is ready to be treated. While being stored, the heavy solids settle to the bottom of the tank and the light particles, like fats and oils, float to the top of the water to create a scum.



Tricel Vitae wastewater treatment plant has an overall efficiency of up to 98.6% BOD removal during EN12566-3 test

2. **Filling:** the filler airlift-pipe pumps wastewater from the primary chamber to the reactor chamber in batches before the beginning of the aeration stage. The filler airlift-pipe is designed to ensure that only the wastewater from the centre of the chamber, which does not contain heavy solids or floating solids, is sent to the reactor chamber for treatment.
3. **Aeration:** in the reactor, naturally occurring bacteria remove the pollutants from the wastewater. These bacteria are sustained with air delivered through a diffuser at the bottom of the tank.
4. **Settlement:** after aeration, there is a settlement stage in which no activity takes place inside the reactor. During settlement, the bacteria separate from the liquid and settle, as a sludge, to the bottom of the chamber. The treated liquid now meets the required standard.
5. **Excess sludge removal:** the sludge-return airlift-pipe recirculates the excess sludge back to the primary chamber.
6. **Clearwater removal:** the treated wastewater is now ready for discharge and expelled from the Tricel Vitae plant via the clearwater airlift-pipe.

Key features & benefits

- **Compression moulded SMC tank**, manufactured under heat and high pressure ensuring unrivalled strength and durability. Tricel SMC tanks are operating in some of the harshest climatic conditions for over 40 years with no defects.
- SMC tanks are **robust and lightweight** making them easy to install.
- **Low running cost.** Blowers run on timers and automatically adjust to incoming flow to ensure optimum performance for minimum running cost.
- No moving parts or pumps ensure reliable operation, resulting in **minimal maintenance and repair costs**.
- Every plant is commissioned specific to requirements. **Service contracts are available** to ensure the correct long-term operation of the plant.
- **Factory fitted alarm** on all systems.
- **Risers** available for deep inverts
- **Locally manufactured** with swift back up.
Full traceability, from factory floor to local installation.

Contact Depawater, Tricel's partner in Northern Ireland, for a **Free Quote**

Tel: 02837 507 023 | Email: sales@depawater.co.uk

Homeowners: individual domestic installations



▶ Tricel Vitae 6 being installed



▶ Tricel Vitae 6 installed



▶ Retrofit of Tricel Vitae plant

Larger projects: commercial installations up to 50 PE



▶ These plants are suitable for installation at housing estates, camping sites, hotels etc., and have low maintenance and running costs.



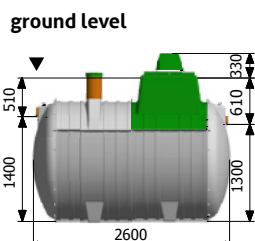
▶ Each wastewater treatment plant unit is constructed of lightweight SMC and is easy to manoeuvre which simplifies the installation process.



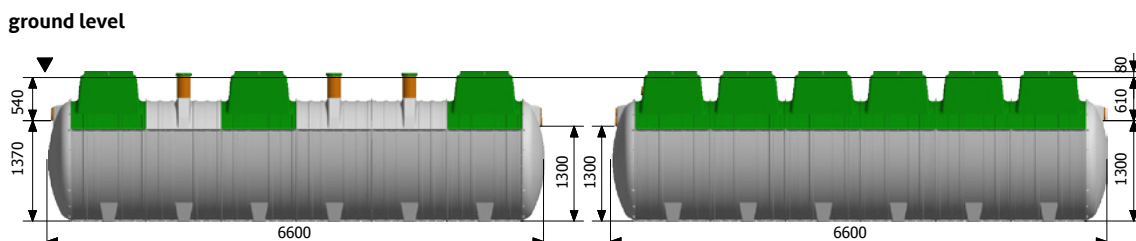
▶ Example of a Tricel Vitae kiosk - Tricel Vitae's have minimal visual impact on the environment.

Technical characteristics/ Plant dimensions

Vitae Design Population		No. of People	Total capacity	Length	Width	Height	Nominal inlet diam-eter	Nominal outlet diameter	Weight empty	Inlet invert to base	Outlet invert to base	Inlet invert to ground level	Outlet invert to ground level	Air blower rating
			ltr	m			mm		kg	m				W
UK6		1-6	4078	2.6	1.64	2.24	110	110	300	1.4	1.3	0.51	0.61	86
UK9		3-9	5794	3.6	1.64	2.27	110	110	400	1.4	1.3	0.51	0.61	100
UK12		4-12	7456	4.6	1.64	2.27	110	110	500	1.4	1.3	0.51	0.61	130
UK15		5-15	9145	5.6	1.64	2.27	110	110	600	1.4	1.3	0.51	0.61	130
UK20		7-20	10834	6.6	1.64	2.27	110	110	700	1.4	1.3	0.51	0.61	215
UK26	Tank A	9-26	7176	4.6	1.64	1.99	150	110	500	1.37		0.54	0.61	
	Tank B		5546	3.6	1.64	1.99	110	150	400		1.3		0.61	215
UK36	Tank A	12-36	8806	5.6	1.64	1.99	150	110	600	1.37		0.54		
	Tank B		7176	4.6	1.64	1.99	110	150	500		1.3		0.61	215
UK44	Tank A	15-44	10436	6.6	1.64	1.99	150	110	700	1.37		0.54		
	Tank B		8806	5.6	1.64	1.99	110	150	600		1.3		0.61	215x2
UK50	Tank A	17-50	10436	6.6	1.64	1.99	150	110	700	1.37		0.54		
	Tank B		10436	6.6	1.64	1.99	110	150	700		1.3		0.61	215x2



Tricel Vitae UK6



Tricel Vitae UK50

Tricel Vitae riser option for deep installations

Tricel offers a riser to suit a deeper invert/inlet level. Manhole risers allow for the positioning of the treatment plants at the depth which is optimum to each individual installation. Wastewater is gravity fed from the premises to the treatment plant. The inlet pipe's position from the premises determines the excavation depth for the wastewater treatment plant.

Tricel offers a riser to help with installation where site conditions require a flexible solution.

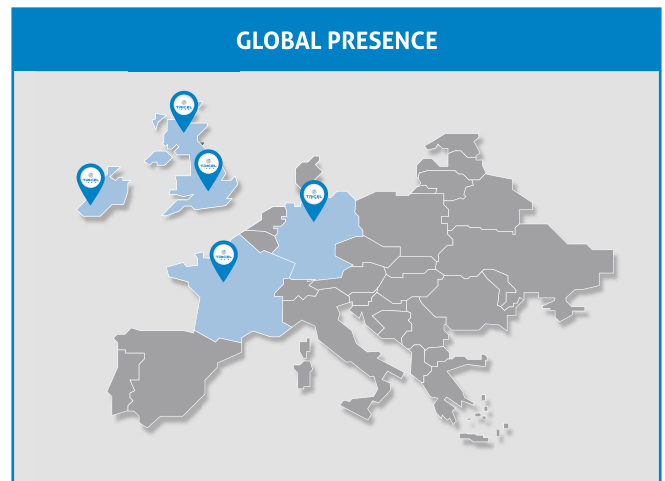
Tricel Group

Tricel is a world recognised global provider of **high-performance solutions**. Today, the company operates across multiple industries such as **Environmental, Construction, Water and Distribution**, including both composite materials and lubricants.

We occupy a unique position in the field of reinforced plastics, combining the technical expertise of **over 60 years in the press-moulding and composites industry**. Tricel is proud of being one of the largest manufacturers of wastewater treatment plants in Europe, and are regarded by regulators as the standard setters within the industry.

Tricel are **experts in Sheet Moulding Compound (SMC)** processes and produce the only wastewater treatment plant in Europe constructed from this material. This process gives the highest strength to thickness ratio of any tank on the market, and has no risk of corrosion over time.

Our company offers industry **leading innovative solutions** that our customers can trust, and with operations in 12 locations across Europe we supply a comprehensive range of products to **over 50 countries worldwide**.



Membership of European associations on wastewater treatment

Tricel wastewater treatment plants are fully tested and accredited to **European standards for CE certification**.

Tricel Vitae wastewater treatment plants meet with **EN12566-3** requirements which test both the quality of the components as well as the overall performance of the plant.



British Water is the leading association representing suppliers, manufacturers, contractors, consultants and others in the UK water industry supply chain.



The Irish Water Treatment Association (IWTA) is the national association for the treatment, conservation, recycling and reuse of water and wastewater in Ireland.

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WARRANTY



- The warranty period for **mechanical parts** within the products is **2 years** from the date of purchase. This includes the compressor, control panel, diffusers and all internal components.
- The SMC structure of the tanks carry a **10 year warranty** from date of purchase.
- All products are **CE certified to EU safety**, health and environmental requirements.

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