



Kelair-Blivet™ Packaged Sewage-Treatment Plant

APPLICATION EXAMPLES:

- Environmentally-sensitive sites
- Townships & villages
- High-rise development
- Resorts & remote sites

UNATTENDED OPERATION

Does not require constant manning. The units can be set up via telemetry for remote monitoring.

COMPACT

The Aerotor™ provides 1.5 times the surface area of an RBC and this, combined with the utilisation of parallel plates, gives an unbeatable size to population treatment ratio. The smaller footprint reduces cost.

DURABLE

The tankage is steel reinforced GRP (Glass Reinforced Polyester) rendering it impervious to decomposition in the most demanding environments.

FLEXIBLE

The compact pre-fabricated and portable package makes the unit suitable for temporary or permanent installation on existing or greenfield sites. Easily removable for re-siting.

MODULAR OPTIONS

Adding discrete modular units permits phased development in step with project growth.

SITE OPTIONS

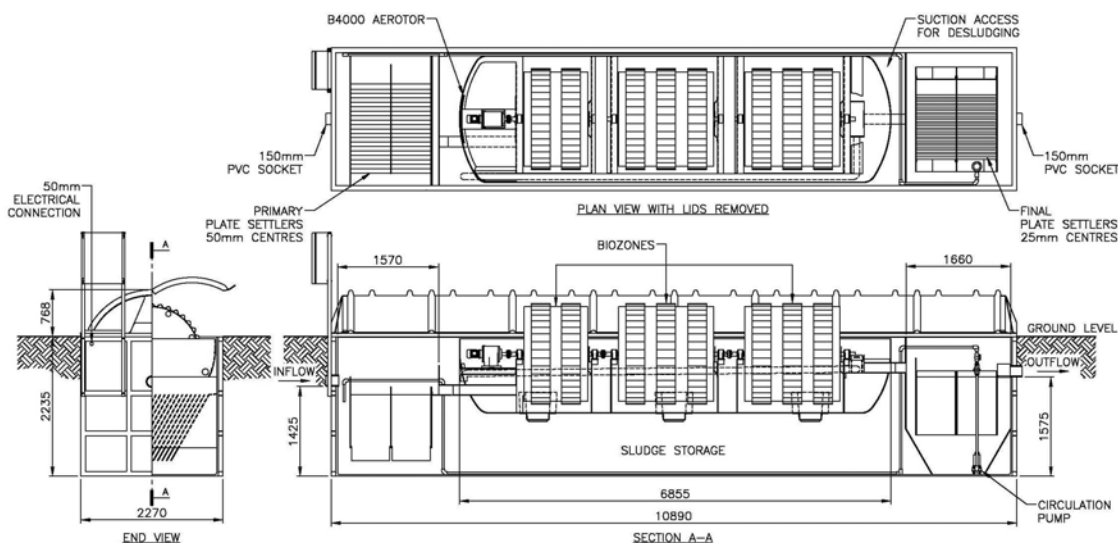
The Kelair-Blivet™ may be placed above ground or buried to deck level, leaving locked GRP lids at ground level.



The Kelair-Blivet™ is a stand-alone packaged sewage treatment plant comprising primary settlement, aerobic zone, final settlement (humus tank) and sludge storage. The aerobic zone utilises the standard Kelair-Aerotor™ Biozone plant. The Kelair-Aerotor™ range is an established and innovative system for highly efficient process reduction of BOD, Suspended Solids (S.S.), Ammonia etc. It combines the best features of existing RBC technology with the additional advantage of active aeration.

The Kelair-Blivet™ is designed to accept raw (unsettled) sewage and produce a high quality final effluent without the need for ancillary tankage or equipment. As the final appearance of the unit is critical, the system may be buried up to deck level, such that the impact on the landscape is not intrusive. The units are covered, preventing noise and fly nuisance. The Kelair-Blivet™ is a modular unit that lends itself to future expansion or relocation.

The Kelair-Aerotor™ Biozone is available as a separate unit in a range of standard modular sizes. It can be installed as an adjunct to an existing works, or as a discrete system in conjunction with primary settlement and humus tanks of separate supply (e.g. concrete tanks). Further, its flexibility makes it especially suitable as an 'Add-On' to a septic tank or an overloaded works.



Tank Size	Unit Average Flow	BOD Applied Level	Average (People)	Approx. Weight Empty	Approx. Weight Operating	Drive Unit	Connection (mm)	Unit Sizes (Metres)		
								No.	m ³ /day	kg/day
BL500	11.5	2.75	50	3.0	17.5	0.37	150	4.9	2.27	2.9
BL1000	23.0	5.5	100	3.35	19.25	0.55		5.375		
BL1500	34.5	8.25	150	4.0	23.75			6.4		
BL2000	46.0	11.0	200	4.7	28.25	0.75		7.5		
BL3000	57.5	13.75	250	5.85	35.25			9.275		
BL3500	74.75	17.875	325	6.3	38.25			10.1		
BL4000	92.0	22.0	400	6.8	41.5		10.9			

CASE STUDY Kelair-Blivet treats environment friendly at Barnboughe Dunes

Barnboughe Dunes is an 18-hole championship links golf course, located on the edge of the small Tasmanian town of Bridport, just one hour's drive north-east of Launceston. It was recently ranked 49th in the world by US Golf Magazine, an outstanding accomplishment for such a new course.

The development contains a clubhouse, bar, restaurant and bungalow accommodation that required a unit capable of treating sewage for approximately 300 visitors and staff. The sewage and wastewater from the bungalows is gravity-reticulated to the treatment plant which comprises primary settlement, aerobic zone, final settlement (humus tank) and sludge storage, whereas the outflow from the clubhouse is pumped to the plant by a Kelair poly-packaged pump station.

Kelair Pumps proposed the Kelair-Blivet™ BL3000, sized to cater for the full development of the course which is located in an environmentally-sensitive area. The unit is capable of treating 57,500 litres and 13.75kg of BOD per day during the coldest winter months, and more as the temperature rises. The high quality final effluent is held in a 45,000 litre in-ground tank with disinfection being achieved through a Kelair-designed dual disinfection system utilising a circulation pump, 3-pass UV unit and in-line chlorine unit, ensuring an extremely low thermo-tolerant coliform count.

The course irrigation system runs between 9.00pm and 7.00am and delivers up to 1.5 megalitres of water. A Kelair-manufactured duty/standby irrigation injection pumpset is utilised to discharge the final treated effluent into the main irrigation pumps' manifolds during the irrigation cycle. These have been sized to cover the maximum volume in the minimum irrigation time-frame. The injection pumps are inter-locked with the main irrigation pumps and are regulated to inject only between the hours of 11pm and 4am, minimising the risk of the public coming into contact with the treated effluent.

The Barnboughe Dunes Blivet installation proves that a sewage treatment plant can not only be low maintenance, quiet, odourless and efficient but also look good. Richard Sattler the course owner says, "we're rapt with the Blivet, it blends in with the surroundings, works really well and the back up service from Kelair has been first class."

