



Carrousel® 1000

Robust, reliable, intelligent control, easy to operate

Based on robust oxidation ditch principles Carrousel® 1000 is an easy to operate and reliable wastewater treatment plant. It produces excellent effluent quality and is suited to small-scale applications given its extremely compact footprint. Operation and maintenance requirements are particularly low as a result of limited equipment, easily accessible components and fully automated operation and control.

Carrousel® 1000 is ideal for use in remote areas, small towns, mining camps as well as industrial operations in high density urban areas. Its modular design and compact layout allow for hassle-free capacity extension. The plant is designed for unattended and low-skilled operation.

For municipal applications Carrousel®-1000 is available in five sizes ranging from 1,000 to 5,000 PE. Custom-designed solutions are provided by our wastewater experts for industrial wastewater – ranging from the food and (petro) chemical industries, mining sites through to pulp and paper mills.

Delivery options

The Carrousel® 1000 plant is delivered as a technology package and the scope of supply generally includes:

- selection of the appropriate Carrousel® 1000 size
- civils design showing major dimensions
- equipment specifications
- process design review of the detailed/engineering design
- aeration equipment - Oxyrator®, gear box, and e-motor
- aquasuite® CarCON process controller
- process guarantee
- pre-treatment equipment as an optional

Deliveries are typically arranged in terms of *Cost, Insurance and Freight (CIF)* at the nearest port. *Design & Construct* or *Turnkey* contract formats will depend on local conditions and client preference.

Carrousel® 1000

Standardized, low investment, low O&M.



Technology and control

The sharply inclined clarifier floor makes sludge collection simple. Mechanical equipment is minimal comprising a single surface aerator and a mixer, with two sludge pumps. Screening is the only pre-treatment required. Sludge and effluent produced are of a high quality and can be recycled for landscaping, irrigation or groundwater recharge.

CarCON automatic controller

The CarCON Carrousel® Controller continuously balances oxygen demand and energy input. The self-learning flow prediction feature anticipates process changes and recognizes low and peak periods such as public holidays, weekends and rain events. The result is an intelligent control system that is up to 25% more energy efficient than conventional PID controllers.

Proven technology

The Carrousel® 1000 is part of the Carrousel® portfolio. It is characterized by its simplicity, robustness, and flexibility. To date 1,200 installations have been designed under the supervision of Royal HaskoningDHV. Our designs range from high through to low loads; from low through to high ambient temperatures. The treatment process has proven over the years, to be easily adaptable to stringent effluent requirements.

Dimension and capacities

Capacity	1,000 PE	2,000 PE	3,000 PE	4,000 PE	5,000 PE
Average daily flow (m ³ /d)	150	300	450	600	750
Dimensions L x W x D (m)	9 x 9 x 4	14 x 10 x 4.5	17 x 12 x 5	18 x 14 x 5.5	20 x 15 x 5.5
Aerator capacity (kW)	5.5	11	15	18.5	22
Aerator	1	1	1	1	1