

contact between the micro-organisms and the substrate (food). The high-volume, low-lift aeration pump used automatically adjusts the aeration proportional to flow: this optimises power consumption and no over-aeration takes place.

The unique pumping feature eliminates the need for two pump sets to transfer biomass to the secondary settling tank and the return activated sludge required from the underflow of the secondary settling tank. The aeration and pumping programmes are preset, reducing operational input while simplifying maintenance inputs.

"We believe we have embarked on the best possible approach for our wastewater management and treatment. The technology application from Tecroveer requires less capital investment, since fewer mechanical components are used and the civil infrastructure requirement is reduced. This means a reduced energy cost, less maintenance and it's easy to operate," notes Erhart.

With direct access to the busy Malibongwe Drive and in the hub of the thriving Lanseria node, the 90 ha Lanseria

Corporate Estate, with its 160 stands, is fast gaining new investors who want to benefit from the location and the many advantages offered by the upmarket industrial corporate estate.

"Our investors are discerning and they want the best when it comes to what a modern office and industrial environment should ideally offer. Long-term sustainability and the effective use of resources, with due respect to the environment, is key and it is these principles that Lanseria Corporate Estate embodies. Our WWTW is only one of the ways in which the estate provides leading service delivery that makes sound economic and environmental sense," concludes Erhart.

## PROJECT PHASES

The first phase comprised several features, including inlet works, manually raked bar screens, de-gritting channels, a flow meter, a primary anaerobic pond and oxidation ponds.

The second phase, which has a hydraulic capacity of 500 kℓ/d, includes a balancing tank with mixers and recirculation pumps



Secondary settling tank situated between pasveer reactor in the foreground and head of works behind it

(these were converted from the anaerobic tank of phase 1), an aerobic/anoxic reactor with horizontal brush aeration, a secondary sedimentation tank, chlorine contact tank and chlorine tablet dispenser.

Phase 3 comprises an extension to inlet works and the construction of an additional activated sludge aerobic/anoxic reactor, as well as the upgrading of the disinfection stage to an automatically controlled chlorine gas application. 35