Description

Oxidation Ditches have principally been used on municipal treatment plants greater than 30,000 EP. Oxidation Ditches are also used on municipal plants treating high percentage of industrial waste.

Aquatec Maxcon provides a wide range of equipment for outfitting oxidation ditches. These include:

- Mixing systems including AquaSal Aerator / Propulsion Mixer;
- Mixing systems including Landox Rotor Oxidation Systems;
- Aeration systems including surface aerators and fine bubble diffusers; and
- Blowers for fine bubble diffusers

Aquatec Maxcon has installed 4 Landox Rotor Oxidation Systems.

- Loganholme 3 (1x8.5 ML ditch, 30,000 EP)
- Coombabah (2x15 ML Ditch, 100,000 EP)
- Porirua (1 x 18 ML Ditch, 75,000 EP)
- Loganholme 4 (1 x 8.5 ML Ditch 30,000 EP)

Design

Design Advantages

- Low operating costs
- Simple to operate or automate
- DO levels can be closely maintained to optimise power savings
- Significant denitrification is achieved (
- Mixing system is independent of aeration system, thus the basin velocity and aeration can be independent
- Well established technology

Technical

Performance

- Extended aeration typical F:M » 0.05
- Very efficient aeration system typically:
    - 4 kg O2/kWhr (SOR)
    - 2.5 kg O2/kWhr (AOR)
- Excellent nitrogen and BOD removal
- Typical effluent is better than:
    - 5 mg/L BOD
    - 5 mg/L NFR
    - 5 mg/L TKN
- Relatively low power cost per kg of BOD removed generally less than 0.05 kW/kg BOD

Applications

- Municipal Wastewater Treatment Plants of medium to high size > 30,000 EP
- Industrial wastewater with soluble COD
- Industrial wastewater high in nitrogen eg. abattoirs

Services

Aquatec Maxcon has established and maintains a dedicated service department for scheduled maintainence and breakdown services.

Services Home Page