

### 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 Ladox Rotor Oxidation Systems;
- Aeration systems including surface aerators and fine bubble diffusers; and
- Blowers for fine bubble diffusers

Aquatec Maxcon has installed 4 Ladox 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 O<sub>2</sub>/kWhr (SOR)
  - 2.5 kg O<sub>2</sub>/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 maintenance and breakdown services.

[Services Home Page](#)