Rotating Biological Contactor (RBC)

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The Rotating Biological Contactor (RBC) is one of the most efficient fixed film wastewater treatment technologies. It's well suited for secondary and /or advanced treatment in municipal and industrial applications.

The process consists of large diameter corrugated plastic media centered around a horizontal shaft, mounted in a steel or concrete tank. The media is slowly rotated, submerged 40% in the wastewater.

Organisms in the wastewater attach and multiply on the rotating media until they form a thin layer of biomass.

During rotation, the media carries the biomass and a film of wastewater into the air where oxygen is absorbed. The dissolved oxygen and organic materials in the wastewater diffuse into the biomass and are then metabolized.
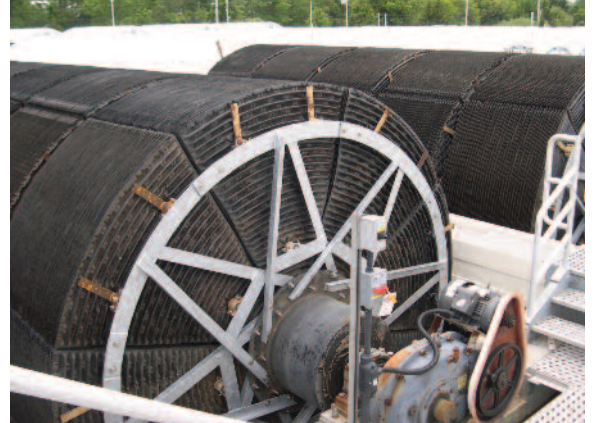
Excess biomass shears off at a steady rate as the media rotates. These solids are carried through the RBC system for subsequent removal in a conventional clarifier.

Benefits include:
- Consistent process results
- Stable operation with minimal supervision
- Small footprint due to short retention time
- Minimal headloss through the system
- Low energy consumption
- Minimal maintenance

Typical Applications:
- Municipal wastewater treatment
- Food and Beverage wastewater treatment
- Landfill leachate
- Refinery and petrochemical wastewater treatment
- Pulp and paper wastewater treatment
- Septage treatment

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