

Ragless Impeller Installation

Comparison of the performance of the RL-3 impeller to the HE-3 impeller in a water treatment application

Case study facts

Location: Pinellas County, Florida, South Cross Bayou WRF

Application Information:

- Anoxic basin: Start-up in 2000
- Basin dimensions: 40 ft long x 35 ft wide x 17 ft water depth
- Plant flow: 21 MGD average

Agitators Compared:

- 5hp at 30 rpm unit with 94 in. ϕ HE-3 up-pumping impeller
- 5hp at 30 rpm unit with 84 in. ϕ RL-3 down pumping impeller

HE-3/RL-3 initial installation



HE-3/RL-3 after 8 weeks operation



Summary

- **Maintenance benefits**

- Customer had to drain the basin and increase flow rate to other basins which required manual changes to the process
- Outfitting personnel for basin entry and removal of fibrous material is eliminated
- Disposal issues of fibrous material eliminated

- **Mechanical benefits**

- Increased up-time of your plant
- Reduces load on agitator system such as gears, bearings, motor, shaft, and impeller blades
- Reduced vibration and increased life of agitator

- **Process benefits**

- Increased process up-time and elimination of manual process changes
- Elimination of fibrous material on impeller maintains top to bottom flow pattern which improves solids suspension and blending uniformity in basin
- Reliable and consistent discharge within plant operating permit limits

- **Application and sales support at your disposal**

- Local sales engineers:

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