

THE CHALLENGE

An Ontario distillery draws river water into a storage tank for plant processes. A downstream pump was experiencing mechanical seal failures caused by abrasive sediment. The existing basket strainers were not capturing enough of the fine, heavy particles responsible for the damage.

THE SOLUTION

A three-minute settling test showed that most particles settled within two minutes, indicating that centrifugal separation was suitable for the application. John Brooks installed a LAKOS Standard Separator in 304 stainless steel upstream of the existing basket strainers and pump to remove heavy, settleable solids before they reached the equipment.

THE RESULTS

- No further pump seal failures reported for more than 24 months
- Estimated annual savings of $40,000 in maintenance, parts, labour, downtime and related operating costs
- Reduced abrasive wear and improved pump reliability
- Less operator intervention through automatic, time-based purging

Case Study

LAKOS Separator Eliminates Pump Seal Failures and Reduces Maintenance Costs

River water pre-filtration at an Ontario distillery

Technology Utilized

LAKOS Standard Separator

- 304 stainless steel construction
- Application flow rate of approximately 200 to 325 GPM
- Designed to separate heavy, settleable solids 74 microns and larger under suitable operating conditions
- Automatic, time-based purge
- Continuous separation without disposable filter media

How It Works

1. Water enters tangentially and spins inside the separator. Centrifugal action moves heavier particles towards the outer wall.
2. The separated solids settle into a collection chamber and are discharged through an automatic, time-based purge.
3. Water passes through the existing basket strainers before reaching the pump. Removing abrasive sediment helps protect the mechanical seals and reduce maintenance.

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1-877-624-5757 · johnbrooks.ca · industrialsales@johnbrooks.ca