

Accelerate your solid-liquid separation

Maximize uptime and profitability with Alfa Laval decanter centrifuges





Let the centrifugal force do the job

Equipment for solid-liquid separation is an essential part of any mining and mineral plant. Traditional solutions such as gravity thickeners, settling ponds and filter presses are often associated with high costs, poor efficiency and/or environmental issues.

Alfa Laval is one of the world's leading suppliers of decanter centrifuges and our equipment has long been used for solidliquid separation in other demanding industries, offering benefits such as very high capacity and cake dryness, minimal footprint, low investment costs, great reliability and flexibility.

With our new P range of decanter centrifuges specifically developed for mining and mineral applications, we bring these benefits to your industry. We help you optimize your separation processes throughout your plant and improve your bottom line.

Please contact us or visit www.alfalaval.com to learn more.



Rix's Creek, Australia

Installing an Alfa Laval decanter centrifuge for separating out water from coal mine tailings has resulted in significant savings in capital expenditure, water consumption and energy usage at Rix's Creek coal preparation plant.

"Using the decanter centrifuge enables us to retain and reuse 80–90% of the process water. Given the water shortage here, these are significant savings," says Robert Booth, project manager at Rix's Creek.

Short payback time

Alfa Laval decanter centrifuges are the perfect choice for a wide range of solid-liquid separation duties in mining and mineral applications. They can replace or complement existing solutions and help boost capacity, reduce tailings volumes, save space and increase the recovery of water, chemicals and minerals.

Optimizing your solid-liquid separation processes is a straightforward way to cut operating and investment costs while minimizing your company's environmental impact.

In many cases you can raise plant profitability by simply adding Alfa Laval decanter centrifuges to traditional separation systems such as thickeners, sedimentation dams and various filters, or replace the old system altogether.



The output from an Alfa Laval decanter centrifuges is sufficiently dry to be stacked.

Benefits

- High cake dryness the cake is sufficiently dry to be stacked
- Very high throughput and small installation area
- Continuous, automatic operation
- Two or three phase separation
- Low investment costs
- Contained process resulting in good working conditions
- Robust design and low maintenance costs
- Full support from our global service organization, even in remote locations
- High recovery of water, process chemicals and minerals
- Highly flexible setup that can easily be moved if operations are moved
- High reliability
- Comprehensive range of services

Tests

We are happy to install test equipment at your site and perform tests under your specific process conditions so that you can experience the performance of our decanter centrifuges before making a decision.





Mature fine tailings, Canada

More than 30 Alfa Laval decanter centrifuges have been installed at three different tailings treatment sites in Canada. The decanters have proven to be an outstandingly efficient solution for large-scale dewatering of tailings. The decanters efficiently remove the finest particles that conventional solids control equipment is unable to deal with.

With their large capacity, high efficiency and reliability, Alfa Laval decanter centrifuges have set a new standard for tailings treatment.

Opportunities throughout your process





Eti Maden, Turkey

The world's largest borate mining company, Eti Maden in Turkey, uses an array of fully protected Alfa Laval decanter centrifuges to separate tailings from a saturated borate solution.

The company is very pleased with the long track record of reliable operation, low maintenance costs and strong local service support from Alfa Laval.





Potential decanter applications

- 1 Acid mine drainage sludge treatment
- Drilling water sludge treatment (water recovery / metal recovery)
- 3 Fine rejects / slime dewatering (water recovery, dry stacking)
- Solid-liquid separation and washing (replacement of thickeners / washers)
- 5 Tailings dewatering (water recovery, chemical recovery, dry stacking)
- 6 Thickening of concentrate (thickener replacement)
- 7 Concentrate dewatering (filter replacement)
- 8 CRUD treatment to recover organic solution
- Anode slime dewatering to recover solution / recover valuable metals from sludge
- Waste / residue dewatering to recover product / dry waste disposal
- 1 Product thickening (thickener replacement)
- 12 Product dewatering (filter replacement)

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineering solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.



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