

Defining new benchmarks for dewatering performance

We've raised the bar

The technology advances built into ALDEC G2 decanter centrifuges have quite simply raised the overall standard of what you can achieve when it comes to dewatering performance.

Quantum leap

The revolutionary technical concepts at the heart of the ALDEC G2 design have enabled us to make a quantum leap forward in terms of capacity, performance and reliability.

More treated, more efficiently

ALDEC G2 units treat larger quantities of sludge while also providing cleaner centrate and drier cake, using less energy and only the absolute minimum of polymer.

Better control

Effective dewatering of large volumes of sludge requires consistently high torque and effective control. ALDEC G2 decanter centrifuges are the only design currently available that gives you both - across the whole range of throughput.

Optimized flow

In the ALDEC G2 design, the sludge is fed in carefully and the polymer is mixed in at exactly the right place and time. This makes the dewatering process supremely effective, and you get the most out of it.

Furthermore, the sludge is only discharged when all the centrifugal forces available in the bowl have been exploited to the full, thus ensuring maximum effect.

Drive system matches varying needs

The unique drive system that Alfa Laval introduced with the ALDEC G2 makes it possible to vary the bowl speed and the conveyor speed independently of each other, ensuring a perfect match with operating requirements as they fluctuate and vary.

This provides you with consistent levels of efficiency across the operating spectrum, using only a minimum of energy.

Controlled advantage

ALDEC G2 units are fitted with the 2Touch Core Controller as standard. This provides unique enhancements to ensure optimum performance, and controls operation of the Direct Drive system so that it matches the exact solids load present in the bowl at any given time.

A comprehensive range of control solutions is available to provide the exact degree of monitoring and automation you require for maximum efficiency.

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered 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



Shifting the benchmarks for dewatering

ALDEC G2 decanter centrifuges for dewatering



ALDEC G2 dewatering solutions bring you dramatic improvements in the ratio between what you can achieve and what it costs to do so.

Compared with even high-performance conventional equipment, ALDEC G2 decanter centrifuges provide the driest possible sludge cake at the lowest possible cost. The many technological breakthroughs in the design keep life cycle costs to the absolute minimum, and low power consumption keeps CO₂ emissions down.

There is a new generation of basic equations for sludge dewatering capabilities – the benchmarks have shifted to your benefit.



Defining new benchmarks for dewatering costs

... and new lows for sludge treatment costs

Every feature of the ALDEC G2 design reflects our determination to reduce both the life cycle costs of dewatering equipment as well as the direct operating costs for sludge treatment.



An ALDEC G2 installation will therefore consistently save you money, while the life cycle costs of other decanter centrifuges are continually on the increase as the years go by.

Protected investment

The ALDEC G2 is the only sludge decanter designed for effective protection against erosion - right from inlet to outlet. This helps make ALDEC G2 solutions a solid long-term investment.

Low maintenance costs

You can rely on the ALDEC G2 to continue working reliably and efficiently throughout its exceptional service life, with only minimal maintenance. And when servicing is required, replacing any worn parts is quick and easy, and can for most parts be done on site.

Savings on sludge disposal

The ALDEC G2 lets you decide the exact dryness of the final sludge cake. This in turn determines the volume of sludge you need to dispose of. Drier sludge enables you to cut the costs involved in drying and/or disposal.

Less polymer needed

Using an ALDEC G2 dewatering solution also cuts down on the quantities of polymer you have to use to get any desired result. This adds up to big savings on operating costs, as well as cutting down on the environmental impact.

Low energy consumption

The unique drive system used in the ALDEC G2 features the lowest installed power specifications of any comparable system. This adds up to lower power consumption than any conventional decanter centrifuge currently available.

Reductions in energy consumption of up to 40% compared with conventional drive systems also enable you to achieve notable reductions in CO₂ emissions.

Cost-effective control

ALDEC G2 decanter centrifuges are equipped with 2Touch controls as standard. This intelligently engineered system makes sure you get the most out of any ALDEC G2 installation, keeping installation, operation and supervision costs to a minimum.

The pay-off is yours

The technology advances built into ALDEC G2 decanter centrifuges have dramatically raised the standard when it comes to dewatering performance. The choice of benefits is up to you - from 2-3% drier sludge cake to 30% greater capacity, or any combination in between.

Power savings of up to 40% complete the picture of major savings to be made and big pay-offs to be had.

Technology that wins tenders

The advantages for contractors and engineering consultants

ALDEC G2 sludge dewatering equipment provides you with the complete package of state-of-the-art technology, integrated with the process know-how crucial for effective implementation.

This is a unique combination that paves the way to prime positioning in tenders and contracts.

The Alfa Laval advantage

Including Alfa Laval sludge dewatering equipment in any tender or proposal can provide you with multiple advantages in any competitive context.

Our exceptional references from all over the world boost the credibility of your proposal or tender, with our reputation providing added value.

The size and reach of the Alfa Laval organization also helps you fulfil any short- or long-term obligations and/or performance guarantees that you may have to provide to comply with tender requirements.

And we can help you apply the full value of our specialist process know-how to comply with any specific local requirements.

Cutting back on costs

Specifying ALDEC G2 dewatering equipment also provides the contractor with important potential savings and cost advantages.

- Smaller, more cost-effective equipment makes it easier to fulfil any particular performance/capacity requirements.
- Low installation costs, problem-free start-up and minimal running-in costs, because ALDEC G2 systems are easy to configure and you can rely on them to start up and run exactly as specified.
- The 2Touch controls package is supplied fully assembled and pre-wired with the exact centrifuge equipment it is designed for. This represents substantial savings on installation and commissioning.
- Low life cycle costs that ensure long-term customer satisfaction. The uniquely low operating costs that are one of the pay-offs of using ALDEC G2 dewatering equipment will make it the preferred solution for your end-user customers.



All-round pay-off

The advantages for plant operators

If you own or operate a wastewater treatment plant, you stand to benefit right across the spectrum from using ALDEC G2 sludge dewatering equipment.

Any solution based on this breakthrough technology brings a major boost to your processing flexibility, making it easier for you to tackle ongoing fluctuations in capacity demand, as well as future expansion requirements.

Technical pay-off

Unlike many traditional solutions, ALDEC G2 decanter centrifuges are specifically designed for removing as much water as possible from the sludge produced by municipal, industrial and potable water treatment plants.

The design features a series of unique technical breakthroughs, including a unique conveyor design, an exceptionally effective back drive system and state-of-the-art control features.

Together, these features ensure the plant operator

- significantly higher processing capacity, providing as much as 30% greater throughput or 2-3% higher dry solids concentrations - or any chosen combination of these



- more accurate control of the dewatering process, resulting in more consistent performance and lower transport and disposal costs
- easily replaceable wearing parts, ensuring more processing uptime
- cost-effective retrofitting and decanter upgrade
- continuous operation and opportunities for automating key control functions
- major savings on sludge disposal.

A range of optional equipment and enhancement packages is available for the 2Touch control system. These include:

- Built-in storage and retrieval of up to 12 pre-configured "recipes"
 - The Octopus "autopilot" system for managing sludge dewatering processes
 - Process module for constant polymer control and dosing optimization
 - Protection against power loss, thus ensuring safe, uninterrupted operation
 - The Cosmos predictive maintenance system for in-depth analysis of service needs
 - Service packages for remote monitoring, response and reporting.
- These are designed to help make sure each decanter centrifuge always operates at peak performance, regardless of sludge type or input variations.

Support pay-off

Alfa Laval is the world's leading expert in dewatering using decanter centrifuges. Users of ALDEC G2 equipment benefit in full from our extensive experience with all aspects of using such equipment, and with dewatering as a whole. This expertise also means we can provide a full range of services tailored to decanter centrifuges, with upgrades and service performance packages customized to your specific needs.

The Alfa Laval organization has a worldwide reach, ensuring you on-time delivery backed by local representation that's available 24/7/365. This helps you achieve maximum dewatering efficiency via rapid-response service, maintenance and technical support, as well as comprehensive warranty coverage.

Pay-off on operating costs

Including ALDEC G2 decanter centrifuges in your dewatering or thickening set-up will have a significant impact on long-term operating costs. Key cost reductions stem from

- using less polymer
- exceptionally efficient use of energy
- consistently high uptime and maximum reliability
- lower service and maintenance requirements
- easy, rapid maintenance
- very high recovery rates
- major savings on sludge disposal.

Downsizing decanters



Smaller replacement

ALDEC G2 decanter centrifuges for sludge dewatering and thickening have dramatically shifted the benchmarks for what's possible in terms of processing capacity per unit cost.

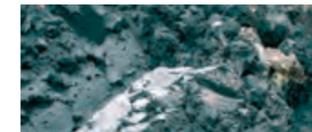
This means virtually any conventional installation can be replaced with a smaller, more cost-effective ALDEC G2 unit whose unique technical features mean it has at least the same capacity, at the same time as being considerably more efficient, more durable and using less energy than any conventional high-performance decanter.

Focusing on the key issues

ALDEC G2 technology redefines the fundamentals of dewatering. Traditional parameters, such as bowl diameter, rotation speed, sigma calculations and hydraulic capacities, are no longer the issue.

Instead, ALDEC G2 focuses on parameters that make a crucial difference to the performance you can achieve.

- Scrolling capacity and discharge from the bowl
- Liquid/solid flow geometries
- Energy consumption per unit of dewatered solids.

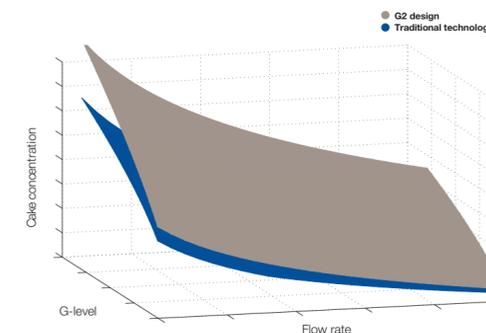


They are available in a constantly expanding range of capacities to meet particular wastewater treatment requirements.

Full spectrum

No matter what the focus - lower polymer consumption, lower life cycle costs, higher cake dryness or clearer effluent and higher capacities - the ALDEC G2 range meets a multitude of different needs.

These include the full spectrum of throughputs and an extensive range of dewatering and thickening requirements, all with exceptional results.



Shifting dewatering performance parameters, all round.