

## A new set of parameters has arrived



The ALDEC G3 decenter centrifuge introduces a new set of parameters for what you can achieve with your separation operations. You can

- save up to 40% on your energy costs
- process up to 10% more sludge.

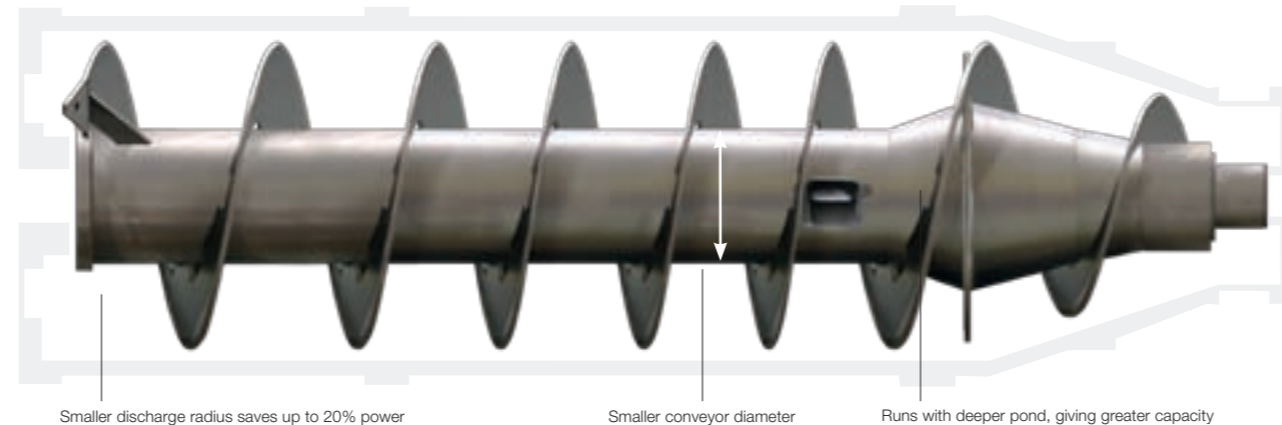
This can reduce your power consumption to as little as 0.50 kWh per cubic metre of sludge (1.89 kWh per 1000 gallons), which in turn cuts back on CO<sub>2</sub> emissions.

The innovative design makes it possible to achieve higher bowl wall pressures – which gives you the choice of big savings in

- cake disposal costs
- polymer costs.

And you can easily monitor, adjust and improve all the operating parameters for the new ALDEC G3 decenter centrifuge to meet your changing requirements, varying inputs and different conditions.

## New Slimline design rewrites the rules



The new ALDEC G3 decenter centrifuge is built around the ground-breaking Slimline design.

The smaller conveyor diameter means there is room for more liquid in the pond, and the pressure on the bowl wall can be higher. This paves the way to either a drier cake or using less polymer.

The smaller discharge radius saves as much as 20% on your power costs, because less energy is lost when the bowl rotates.

The unique Slimline design significantly improves solids handling and helps maximize performance. At the same time, it reduces the power consumption needed to achieve any processing result, and cuts back on operating costs.

## Extracting every ounce of performance



Recovers up to 20% energy due to reduction in discharge velocity

### Conserving kinetic energy

The Power Plates are an integral part of the ground-breaking new ALDEC G3 design. This patented Alfa Laval design reduces the loss of kinetic energy when the liquid leaves the bowl.

This reduces power consumption by as much as 20%. It also makes a big difference to the energy-related environmental impact of your separation activities.



Screen dump from 2Touch controls package

### Fine-tuning what is going on

All ALDEC G3 decenter centrifuges are equipped with the Alfa Laval 2Touch controls package as standard. This makes it easy for you to fine-tune and improve productivity throughout the service life of your ALDEC G3 unit.

You can also fit the intelligent Octopus “autopilot” system to monitor operations 24/7. Octopus then automatically makes all the adjustments necessary to maintain peak efficiency, and ensure the lowest possible operating costs at all times.

# ALDEC G3 – a revolution in performance and energy efficiency

# G3

The new ALDEC G3 decanter centrifuge design is the result of rethinking some of the basic parameters of decanter centrifuge performance.

Alfa Laval's world-leader know-how in decanter centrifuge technology has enabled us to develop a series of ground-breaking innovations, based on proven technology that is known for its reliability. Together, these provide better performance and lower energy consumption, resulting in lower operating costs than ever before.

The new ALDEC G3 decanter centrifuge design provides you with significantly improved separation results and better control of all the variables – using up to 40% less energy.

## You decide on the benefits mix

### The balance that suits you best

The new ALDEC G3 design makes it easy to get the exact balance of savings and benefits to suit your changing needs.

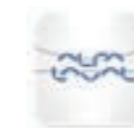
You can balance your priorities between cake dryness and polymer consumption to match any mix of transport and disposal costs, and polymer costs. Whichever balance you decide on, you will always benefit from significant energy savings.

The ALDEC G3 design gives you maximum cost effectiveness at all times, with different combinations of:

- bowl speed
- conveyor speed
- pond depth
- feed rate

to meet your changing needs. Balancing these parameters gives you peak efficiency for a wide range of

processing duties, even under conditions that vary all the time.



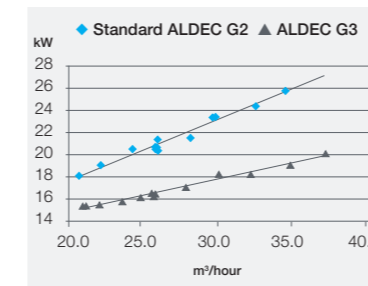
We've made an iPhone app with a mass-balance configurator – and lots more – to help you calculate the benefits.

[www.alfalaval.com/G3](http://www.alfalaval.com/G3)

### Save EUR 430,000 on running your thickening installation

Thickening installation	Low electricity costs	High electricity costs
Feed rate per machine, m <sup>3</sup> /hour (gpm)	65 (286)	
Operating hours per year	8600	
Energy savings using ALDEC G3*, kW	23	
Electricity cost, EUR/kWh	0.08	0.15
Savings over 1 year, EUR	15,456	28,890
Savings over 5 years, EUR	77,280	144,900
Savings over 15 years, EUR	231,840	434,700

\*when comparing with ALDEC G2 or similar decanter centrifuges



Total power versus feed rate (actual installations)

### Save EUR 6 million on running your dewatering installation

Dewatering installation	Electricity	Cake disposal
Feed rate per machine, m <sup>3</sup> /hour (gpm)	90 (396)	
Operating hours per year	8600	
Energy savings using ALDEC G3*, kW	38	
Cake dryness improvement, %	1	
Cost	0.15 EUR/kWh	100 EUR/ton cake
Savings over 1 year, EUR	49,020	350.143
Savings over 5 years, EUR	245.100	1.750.715
Savings over 15 years, EUR	735.300	5.252.145
Total savings over 15 years, EUR	5.987.445	

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## A decanter revolution

# G3

40% less energy  
10% better performance

