



Better brewing – proven benefits



Reducing the energy used in separation

Combining the hermetic inlet with the innovative direct drive system, eDrive™ means the new generation of Alfa Laval brewery separators has the lowest energy consumption by far – 30% less than other comparable equipment.

For a brewery running at 8,000 hours annually – a typical average for a large brewery – this reduction means annual energy savings of about 25.000 Euro. With an average service life of 10 years, these savings amount to an astonishing 250.000 Euro.

Lower energy consumption is not the only customer benefit. The intervals between services are substantially longer. In fact, no other separator currently on the market can equal the BREW 2001 in terms of the intervals between major service works – 16,000 hours. Any required service work can also be carried out more rapidly than with any other comparable products.

There are also fewer wearing parts – such as couplings, bearings and seals – that need checking or replacing. This results in lower operating costs and greater processing uptime.



Reducing emissions in the brewhouse

A typical brewery can consume up to 250 MJ of energy per hl of beer produced, with the wort boiling process accounting for about 50% of this.

This significant energy consumption can be reduced by up to 40% using Alfa Laval technology. Such dramatic reductions can be achieved by thermal vapour recompression and an AlfaCond unit for vapour condensing in the wort boiling process, combined with pre-heating of the wort. Such a set-up is also ideal for retrofitting existing brewhouses.

This means a 1 million hl brewery with an energy consumption of 250,000 GJ/year could thus save up to 20% on energy costs and emissions by using Alfa Laval equipment, corresponding to saving 1.5 million m³ (atm) of natural gas.

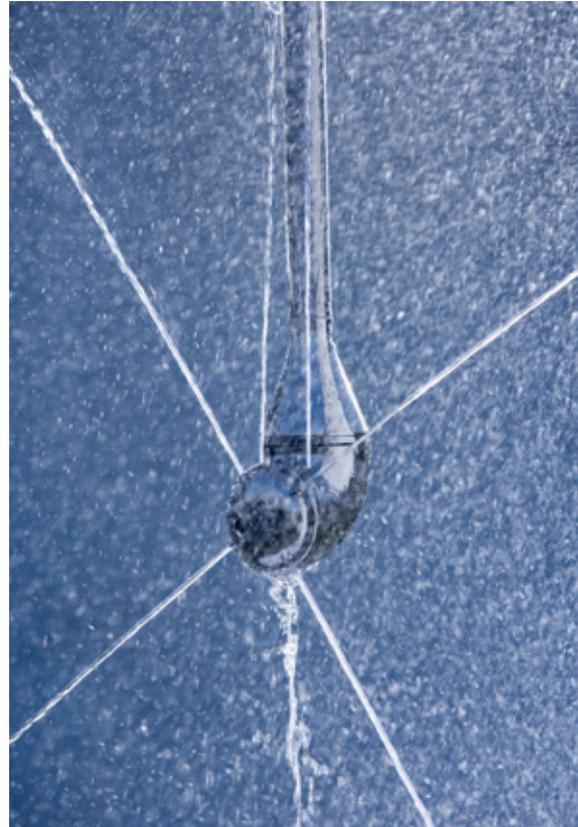


Reducing water consumption

Alfa Laval rotary spray and jet heads provide far more effective cleaning than traditional static spray balls. These impact cleaning devices operate in predetermined patterns with 360-degree coverage that exploit both water and detergent to the maximum.

For a brewery, this can mean savings of up to 75% of the water and detergent used for tank cleaning. An added benefit is that a 50% reduction in cleaning time means better plant utilization.

If the figures are added up for breweries worldwide, using Alfa Laval rotary spray and jet head cleaning technology can save water amounting to the daily water consumption of 1.5 million people, based on the minimum daily water requirement laid down by UNESCO.



Reducing beer losses via beer recovery

In 2008, the Monchengladbach brewery owned by the Oettinger Group implemented a new beer recovery installation based on Alfa Laval membrane filtration technology. This system uses membranes made of polymer to recover beer that would otherwise go to waste, by separating it from surplus yeast.

Breweries generally produce waste yeast that corresponds to 2–4% of their total beer production volume. Using Alfa Laval membrane filtration technology, Oettinger is now able to recover about 60% of this volume as beer. After filtration, this is re-dosed back into the normal process stream before filtration.

For Oettinger, this means the recovery of no less than 14,000 hl of beer annually. In addition to reducing waste, Oettinger also profits from the more efficient use of raw materials. This means the investment in beer recovery technology is paid back within less than three years.



Reducing waste loads by dewatering by-products

Breweries produce large quantities of by-products every day and considerable quantities of effluent containing solid residue are sent to waste water treatment plants.

This is why more and more breweries now use Alfa Laval Foodec decanter centrifuges to reduce the water content of by-products such as kieselguhr, yeast, spent grains and trub, making it possible to find new uses and new customers for these drier by-products. Drier products result in lower transportation costs and reduced environmental impact. In some cases, it also means a significant percentage of extract is recovered, instead of merely going to waste.

Alfa Laval Foodec decanter centrifuge technology helps breweries tackle this situation by recovering as much as possible of the primary products, ensuring drier by-products and at

the same time reducing both COD (chemical oxygen demand) and BOD (biological oxygen demand) in the effluent destined for treatment.

Alfa Laval Foodec decanter centrifuges remove water from kieselguhr slurry to get drier sludge, with a 80% reduction in volume. This slurry can then be accepted without problems at appropriate disposal sites.

In addition, it is possible to combine a yeast dewatering process in the same Foodec unit, reducing the average yeast loads to waste water plants and providing new opportunities for selling yeast to match other customer demands.



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, foodstuff, 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