



Alfa Laval

Optimize Every Drop in Ethanol Production with Alfa Laval's PondCtrl Upgrade

Service product
PondCtrl™ Upgrade

Equipment
Decanter

Customer
Ethanol Plant – ABI – Evergrain –
Saint Louis, MO

↓ **15–20%**

Reduced solids to improved centrate

↓ **5% - 10%**

Reduced power consumption

Ethanol plants like EverGrain, a Missouri-based sustainable ingredient company backed by Anheuser-Busch InBev, are at the heart of the clean energy transition, converting agricultural feedstocks—mainly corn—into renewable ethanol fuel.

A critical phase in this process is solid-liquid separation, where decanter centrifuges recover distillers grains (wet cake) from thin stillage. These centrifuges must consistently perform under fluctuating feed conditions and high solids loads to keep production efficient and profitable.

As plants push for higher throughput and lower operating costs, there's increasing demand for smarter, more adaptive equipment control to optimize every drop in ethanol production. In an industry where margins are tight and performance is everything, automation and adaptability are essential for smarter solids separation.

The challenge

In today's ethanol production environment, operators like EverGrain face variable feed conditions in flow rate, solids concentration and viscosity. In addition, manual adjustment of liquid level or pond depth can lead to process inefficiencies, inconsistent cake dryness and centrate quality (the composition of the liquid separated during centrifuge).

Excessive wear and energy consumption can also occur from suboptimal decanter settings. Static operation often means plants aren't fully optimizing their decanters for changing process demands, leaving performance—and profit—on the table.

Our solution

Alfa Laval PondCtrl is an automated system upgrade for real-time control of the pond depth in your decanter centrifuge during operation. Unlike traditional fixed weir plates, PondCtrl uses an adjustable paring disc system that dynamically alters pond depth during operation without stopping the machine.

PondCtrl works by continuously adapting pond depth based on process needs. That means operators can fine-tune settings from the control system, with no manual changes required. Optimized settings keep separation performance at its optimal point across all operating conditions and prevent liquid overflow in the solids discharge, thereby facilitating starting and stopping.



Customer benefit

Ethanol producers can improve solids separation by maximizing cake dryness and enhancing centrate clarity. With PondCtrl, for example, EverGrain has seen an increase in cake dryness—up to 2% higher total solids—reducing dryer load. They've also experienced improved centrate quality, with 15% to 20% lower solids carryover. In addition, optimized separation reduced power consumption by 5% to 10%, with less downtime.

EverGrain now has greater process control, since they can optimize for yield, energy or product quality, depending on their goals. Flexible operation allows them to adjust pond depth without stopping the decanter, optimizing throughput as the system adapts to changing feedstock conditions in real time. Fewer manual interventions translate to greater uptime and smoother operations while lowering stress on internal components, reducing wear and tear.

Alfa Laval's PondCtrl upgrade brings intelligent control to ethanol decanters—improving separation, reducing costs and boosting plant flexibility. It's a smart upgrade for forward-

thinking ethanol producers like EverGrain who want to get the most from their existing equipment without replacing their decanter.



Optimize

Our Optimize services keep your equipment ahead of technological advancements, exceeding current standards and future needs. Whether enhancing quality, reducing energy use, or increasing capacity, our new upgrades boost sustainable performance and optimize operations for greater returns.

Contact Alfa Laval

