

Allied Distillers

The third generation of Alfa Laval decanters at Allied Distillers Limited

Allied Distillers Limited (ADL) is a subsidiary of Allied Domecq, one of the leading distributors of wine and spirits in the world. Operating mainly from sites around Scotland, ADL runs thirteen distilleries that produce the gin, malt whisky and grain spirit used in prominent international brands such as Beefeater gin and Ballantine's Finest scotch whisky.

For more than 35 years, ADL successfully used two generations of Alfa Laval decanters at its Strathclyde distillery in Glasgow. The performance of these decanters was more than satisfactory, and Alfa Laval equipment proved to be very reliable. The first generation of these was installed in the late 1960s and formed part of the stillage handling plant, where four Alfa Laval P3400 decanters separated the solids from the spent wash going to the evaporation system. After 20 years, ADL installed a second generation of Alfa Laval decanters, replacing the reliable old workhorses with four higher-capacity P36000 decanters. The improved design of these decanters meant even less maintenance, and resulted in longer run times and lower operating costs. To improve the efficiency of its stillage handling plant even further, ADL chose Alfa Laval CHNX438 decanters when the company installed a third generation of decanters in 2003. These decanters will handle the higher spent wash flows that result from the increased production requirements due to high demand for Beafeater gin and Ballantine's whisky. At the same time, they will reduce suspended solids in the feed to the evaporator and improve cake dryness.



Second and third generation decanters



A key factor in ADL's decision to install the Alfa Laval CHNX438 decanters was the company's desire to reduce down time to a minimum. "The decanters are not complicated to maintain, and Alfa Laval has now made even more improvements," says Andrew Scott, an ADL project engineer.

The two new CHNX438 decanters also have automated lubricating and washing systems, which, together with enhanced, full erosion protection in all the vulnerable areas, leads Jim Reid, maintenance engineer at the Strathclyde distillery, to say, "We look forward to the improvements made to the NX range, especially those concerning hard surfacing. In addition, the Alfa Laval decanters are fantastic machines, so why jeopardize a mutually beneficial working relationship? Alfa Laval understands our needs and always finds the solutions necessary to meet our process requirements."

Alfa Laval decanters

Alfa Laval decanters are renowned for their exceptional performance and reliability. To achieve the best separation possible, the machines operate at high G-forces for enhanced cake dryness, together with a deep pond for increased solids recovery. The conveyor differential is automatically controlled and monitored to maintain optimum product quality.



Maintenance requirements have also been reduced by incorporating materials with the very best wear protection, particularly at the tip of the conveyor, around the solids discharge and the feed zone. Not surprisingly, Alfa Laval installations continue to outnumber all others in the grain ethanol distillery industry, particularly in Scotland where they have 100% market share.

Why use a decanter?

Removing a large percentage of the suspended solids with a decanter centrifuge enables the evaporator to work more efficiently and achieve a higher solids content, thus reducing the heat load on the thermal drier.

The efficiency of a dark grains plant is a complicated matter. Using correctly sized and specified decanter centrifuges to achieve high separation of the suspended solids and a dry cake is essential to the overall operation and economic performance of the plant.

The complete range

The Alfa Laval product range encompasses all facets of separation and heat transfer equipment, including decanters, disc centrifuges, evaporators, reboilers and condensers, as well as heaters and coolers. Assembled from high-quality components that are cost-effective to implement in both new and existing production configurations, Alfa Laval equipment remains at the forefront of modern distillery technology.



Technical data CHNX438 decanter	CHNX 438
Bowl diameter	480 mm
Total bowl length	2035 mm
Max. speed	3650 rpm
G-force	3574 G
Max.weight	5000 kg
Bowl material	Duplex
Other parts in contact with process	AISI 316
Typical main drive size	55 kW
Start method	Star-delta or frequency converter
Sound pressure level in free field, dB (A) rel 20µ Pa	85