

# Case Study: Beer Transfer at Brewery



## ENQUIRY

Castle Pumps received an enquiry from a brewery customer based in Scotland looking for a hygienic pumping solution for a beer transfer application. The pump was being used to transfer large volumes of beer throughout the factory and therefore needed to be portable as it would be moved around the brewery rather than installed in one fixed position.

Due to the product being for human consumption, the solution of course needed to be food grade and easy to clean. The other key consideration with pumps for brewing is that they must operate with low shear to prevent frothing and the taste of the product being affected.

## KEY CHALLENGES

1. Approved as safe for food handling
2. Able to be easily transported around
3. Low shear to prevent frothing



## EQUIPMENT SUPPLIED

### Liverani EP Midex Flexible Impeller Pump

Application	Portable Beer Transfer
Flow at 24m head	1920 l/hr
Pressure	6m
Pump Casing	SS 316
Impeller	EPDM Food Grade
Seal	EPDM Food Grade
Connections	Tri-Clamp 1 1/4"
Voltage	1 Phase 230v, 50Hz
Motor	0.75 Kw running at 1400 RPM

## SOLUTION

In order to meet the sanitary conditions of the application, we supplied a flexible impeller pump with a food grade impeller, casing and mechanical seal. We

also swapped out the standard BSP connections for tri-clamp connections as this meets the ISO 2852 standard for couplings within the food industry, as they have minimal areas for bacteria to congregate. Another huge benefit of flexible impeller pumps for beer production is its low shear operation which prevents frothing of the beer and the taste from being affected.

As this food grade pump is reversible, it allows the user to quickly clean the pump between uses by running a cleaning solution through it as well as ensuring that when moved between tanks, any excess beer can be removed from the hose to prevent leaking. Thanks to its compact, relatively lightweight construction, the flexible impeller pump can easily be mounted on a trolley, which the customer supplied, for moving it to where it is required.

Within two days of the pump being delivered, we received a warmly welcomed sample of beer produced by the customer. They were so pleased with their purchase and wanted to give us a taster of some of the beer that the pump would be helping to produce.

