

LIQUID GOLD

BACKGROUND

It is said that monks from the Emerald Isle invented Irish whiskey in the 6th century and it is now delighting the palates and throats of more connoisseurs around the world than ever. And global demand for Irish whiskey is growing steadily.

In response to a growth in demand of 10-15 % per year, the largest manufacturer of premium Irish whiskey was seeking to improve productivity and capacity as much as possible without reducing the quality of the "liquid gold".

The distillery has been expanding their production facilities for its exquisite whiskey with assistance from SEEPEX progressive cavity pump technology.



The Irish Distiller's site at Midleton, Ireland.

TASK AND TARGET

The distillery had to increase the number of mashes from 30 to 45 per week. However, one of the biggest technical challenges and bottleneck the distillery faced was in the removal of large quantities of spent grain with 18-22 % dry solids from the mashing process in less than 50% of the initial conveying time with a total distance of 80 meters horizontal and 30 meters vertical.

APPLICATION DETAILS

- Conveying of spent grain
- Flow capacity: 50 t/h
- Conveying distance: 80 m horizontal and 30 m vertical
- Dry solids content: 18-22 %

KEY SPECIFICATIONS

- Selection of a SEEPEX BT range pump with an open hopper and auger feed screw for products with low flowability
- The changing moisture content of spent grain does not affect pump performance
- Use of energy-efficient pumping technology

COST SAVINGS LOWER ENERGY COSTS

LESS COSTS FOR UNPLANNED DOWNTIMES

SEEPEX PRODUCTS Pump range BT

INCREASE OF OUTPUT

SOLUTION

After intense consultation with SEEPEX, their open hopper pumps with auger feed screw were selected to replace the expeller units due to their ability to handle the varying percentages of moisture content of spent grain from the mash tun. This enabled the mash tun to be emptied 60% faster with a reduction from 55 to 22 minutes and increase the number of mash productions by 50 % from 30 to 45 per week, thus meeting the distillery's target.



Long term partners: SEEPEX pumps at Irish Distillers' site.

The industry regularly uses SEEPEX pumps for the removal of spent grain from small to large scale breweries and distilleries.

The distillery's General Manager says: "There is tremendous demand for our products. Our plant therefore runs non-stop – downtime is not acceptable. Thanks to SEEPEX, we have actually increased our productivity by an additional 50 %. Having already been good partners, we have now become long-term partners."



More than 36 M. liters of Jameson Irish Whisky is produced annually.

MORE BARRELS AT SHORTER TIMES

"One of the biggest features of progressive cavity pumps is their ability to handle a variety of products from highly viscous to non-flowable and varying dry solids content," says Peter McGarian, Managing Director of SEEPEX UK Ltd, explaining the benefits of progressive cavity pumps.



The modernization of the plant was worth it.

BENEFITS

- Reduction in conveying time by 60 %
- Increase in production (number of brews) by 50 %
- Lower energy consumption from moving same product amount 60 % faster



More barrels can be filled at even shorter times.