

HOP, SKIP – NOW PUMP

CONVEYED PRODUCT

- Spent hops

KEY SPECIFICATIONS

- Totally enclosed pumping system
- Ability to handle highly viscous products at high temperature
- Better working conditions

COST SAVINGS

**LESS SKIP
MOVEMENT**

**REDUCED
LABOR COSTS**

**LOW WHOLE
LIFE COSTS**

PUMP TYPE

BT Range

BACKGROUND

Caledonian Brewery was founded in 1869 in the Slateford area of Edinburgh, Scotland. The Caley, as it is locally known, continues the tradition of brewing ale in a Victorian Brew house which remains relatively unchanged since its opening. Their range of beers is brewed using high quality malted barley, whole hop flowers and the last direct-fired open coppers in the U.K.

TASK

The spent hops process at Caledonian was labor intensive. Since the hop's temperature sometimes reached 90°C, it had to be cooled before starting removal. Once the environment in the hop back was conducive, an operator would shovel the hops into a skip which was then taken by fork lift into the yard some 20 meters away. The spent hops was then shoveled into a tractor-trailer. When fire doors were installed in the vicinity of the dump tank, access was restricted and the whole process had to be re-evaluated.

SOLUTION

The brewery manager wanted to reduce labor costs and looked instead for a pumping solution. A SEEPEX progressive cavity pump was installed to convey the spent hops, which varies between 40-90 kg (dry) per mash, depending upon the brew. Initially, the mash was dampened with water before being manually removed but now it is pumped via closed pipework to an external location. The pump has considerably reduced the volume of spent grain and the spent grain is now used as fertilizer mulch in the Edinburgh Botanical Gardens.

The change was tremendous for Caledonian Brewery: they reduced the number of skip hires every week and dramatically saved on labor. Workers used to rake out the hops two or three times a shift but with the SEEPEX system a single operator starts the pump and only has to enter the tank to remove material that cannot be reached by the initial raking.

BENEFITS

- Reduced labor and transportation costs
- More efficient system

