



## IR - heat ensures that labels adhere to beer bottles

What would a bottle of beer be without an appealing label? Breweries often print the necessary information in an imaginative design. Fatal if the label doesn't want to stick! The brewers at BrewDog in Great Britain faced exactly this problem, because condensation on the glass bottles interfered with the adhesion of the labels. After many futile attempts, an infrared system from Heraeus Noblelight now reliably solves this problem.

At BrewDog PLC's brewery in Ellon, Aberdeenshire, an infrared heating system from Heraeus Noblelight ensures that condensation does not form on the bottles when they are moved from an outside storage area to a warmer labeling and filling line inside. This keeps the labels securely stuck to the bottles and allows the bottling line to run at optimum speed. BrewDog was founded in 2007 by two young craft ale enthusiasts, James Watt and Martin Dickie, in Fraserburgh, Aberdeenshire. By its second year, BrewDog had already become Scotland's largest independent brewery. In 2009, the owners launched "Equity for Punks", a crowdfunding program to support their ambitious expansion plans. Then, in 2012, they moved to the state-of-the-art brewery in Ellon. Today, they have brewing facilities in the U.S. and Germany and operate over 100 bars worldwide, offering a range of over 100 beers.

The Ellon brewery is still their flagship facility and they produce draft, canned and bottled beers here. However, there were problems with labels sticking to bottles, which were exacerbated by the installation of a second bottling line in Ellon. Essentially, the problems were caused by condensation. The bottles from the outside warehouse reached the warmer environment inside the brewery, where they were to be labeled, relatively cold. Technicians at BrewDog tried a variety of methods to solve the problem, including extensive use of hot air blowers and an air knife. Unfortunately, they had limited success, and eventually the speed of the Filling line had to be reduced to achieve sufficient label adhesion. BrewDog had already tested the use of infrared to prevent condensation and decided to carry out further tests on the latest line with infrared experts from Heraeus Noblelight. These proved so successful that a 90-kW infrared system with medium wave carbon infrared emitters was retrofitted in the line upstream of the labeling area. This consists of two 45 kW modules that are PID controlled. The temperature on the bottle surfaces is monitored and the IR power is then automatically regulated to 50-70% of the installed power to maintain a preset temperature.



### Features

- Infrared heating system
- Prevents condensation
- Labels remain securely stuck to bottles
- Filling line can be operated at optimum speed

### Technische Daten

- 2 medium wave carbon infrared emitters with 45 kW power each
- PID controlled
- Infrared power is automatically regulated to 50-70%

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