



## Sonic Air “Heats” Up the Bottling Industry

Berentzen fights off their cold since installing a compact Air Knife system that eliminates labeling issues

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### **Application:**

Ice/Moisture removal prior to labeling. The bottle sizes are 70 x 40 x 180mm traveling in single file with a production rate of 30,000 bottles per hour. The bottles are filled mechanically, closed and labeled with self-adhesive labels.

### **Problem:**

Berentzen, one of Germany's premier distilled spirits producers, was having labeling difficulties with their extra thick wall bottles. Moisture and cold were retained in the glass resulting in re-condensation prior to labeling. It became especially problematic in the cold season, if the bottles were delivered from un-heated storage directly into production. The cold is retained due to the thickness of the glass. The liquors are room temperature so that condensation would form and occasionally even ice coat the bottles. Their labels would not adhere without the bottles being dry first. The result of this issue was that filling and labeling could only be started after the empty bottles were stacked in the heated warehouse to warm before filling.

### **The Sonic “Engineered” Solution:**

Sonic sized (2) 36” [914mm] air knives powered by a Sonic 150 w/ 25hp [18.6kW] while recirculating the air to provide an increase exit temperature from the air knives. The idea behind Sonic's revolutionary VT (patent pending) design, is that it utilizes the compression temperature of the blower which a portion of the air is then recirculated back through the blower. With this VT design, the exit air temperature from the air knives reached approx. 113-122°F [45-50°C]. This supply of warm air does not require an external heating system.

The bottles are then passed through the (2) air knives which have an exit velocity of 30,000FPM [9300m/min] with the knives mounted 0.40” [10mm] from the bottles. Together, the high velocity and the increased exit temperature, removed the thin icecap and atomized the remaining moisture. **The result was exact drying of bottles without all of the extra material handling as before.**



The knives were also installed with Sonic's Quick-Release brackets that allow the customer quick changes without the use of tools. Consequently, the system inserted itself into the existing production-line seamlessly without providing extra installation. **For the customer the installed Sonic 150 Air System is efficient and economic.**

The system was installed in October 2003, and the customer has been completely satisfied with the delivered system.



