



ENGINEERING
TOMORROW



Case Story | Danfoss Air Purger IPS

Danfoss **intelligent** **Air Purger IPS 8** lower energy costs with maximum system performance in OB Beer Brewery

HIGHLIGHTS

- Automatic air purging system
- Higher system efficiency
- Lower energy consumptions (cost)
- Possible to monitor non-condensable gases purge history and concentration in real time
- Minimize the leakage of ammonia and protect environment
- No risk of ammonia poisoning

OB Beer

As Korea's leading beer company, OB Beer accounts for more than 80% of Korea's beer exports with more than 24 types of beer exported to more than 24 countries around the world. Founded in 1933, OB Beer produces high-quality beer at three major breweries. Recently, the company replaced its manual air purger in their breweries with the intelligent Danfoss IPS 8, which now provides lower energy costs while maintaining maximum system performance.

The challenge: Optimize safety and power consumption

Even though an air purger is just a small component in a brewery system, it is of great importance in terms of both costs and safety.

Previously, OB Beer used manual purgers that were manually adjusted by manual valves. The manual systems made it impossible to monitor the purging history of non-condensable gases and concentration in real time. Consequently, pressure and energy consumption rates rose, which led to increased costs.

In addition, the manual systems increased the risk of ammonia leakage. Besides polluting the environment, potential leakage was also a threat to the safety of administrators working in the breweries. Ammonia leakage can lead to explosion hazards, and inhaling ammonia is highly toxic and cause serious health problems.

When replacing its outdated air purging system, OB Beer was interested in finding the smartest solution on the market that could optimize the worker safety and reduce power consumption.

The solution: The new Danfoss IPS 8 Air Purger

After consulting with Danfoss engineers, the new Danfoss IPS 8 solution was installed in OB Beer's breweries. A fully automatic air purging system that provides OB Beers with a simple and convenient solution that offers optimal purging performance and maximum system safety.

The IPS 8 is built with intelligent self-diagnostics to allow easier and faster troubleshooting. IPS 8 uses industrial standard modbus RTU, which allows remote monitoring in real time and immediate action on alerts. Essential performance data can be communicated to the PLC system which constantly adapts to its environment to maintain the correct high temperature difference needed to ensure low ammonia content in the purged gas.

In contrast to OB Beer's old system, the IPS 8 solution makes it possible to monitor non-condensable gases purge history in real time. It automatically adjusts the pressure levels and only purge when needed, which helps reduce energy consumption and cost.

The IPS 8 also minimizes potential leakage of ammonia as it automatically monitors the concentration of the NCGs. This ensures better working conditions for the administrators in the breweries, and it prevents refrigerants from polluting the environment.

Both the contractor and the end-user stated that the IPS 8 is far more convenient than the previous manual purging system.



4%

Lower
energy costs

0.5 bar

Lowers
condensing
pressure

Safety

Minimizes the
leakage of
ammonia

Environment

Minimizes the
leakage of
polluting
refrigerant

Danfoss IPS



Learn More

To find out more about Danfoss IPS8, please contact your local Danfoss representative or go to ips.danfoss.com

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