

# Free Cooling

## What is Free Cooling?

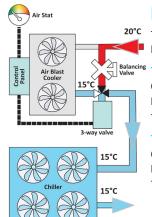
"Free Cooling" is a technique used to reduce the energy consumption of water chiller systems. Typically, these systems use a high-energy compressor to maintain a constant water temperature during the summer months. However, in the UK, where ambient temperatures are much cooler for most of the year, the chillers tend to be oversized and therefore inefficient for up to 70-80% of their operating time.

Fortunately, by retrofitting an existing chiller system with a Summit Free Cooler, significant energy savings can be achieved. The payback period for the investment in this retrofit can be as short as 6-12 months, making it an outstanding return on investment. By implementing this technique, businesses can drastically reduce their chiller running costs without compromising on the system's performance.



### What choose a Summit Free Cooler?

- Huge savings in energy and running costs on chiller systems
- System pack back in 12 months or less
- Compact plan area
- Automatic Control included
- Extended life on your chiller
- Simple retro-fit units
- Lower carbon footprint and improved 'green profile'
- 24 month warranty as standard
- Designed to ISO 9001:2014 and CE marked



# Full Free Cooling

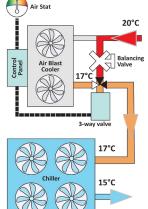
Total power consumption 10.4kW Power savings 83%

#### 150kW Air Blast Cooler

Cooling load 150kW Power consumption 10.4kW 12°C ambient air temperature

#### 150kW Chiller

Cooling load 0kW Power consumption 0kW 12°C ambient air temperature



## **Partial Free Cooling**

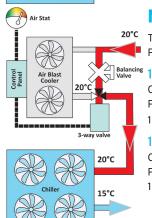
Total power consumption 34.4kW Power savings 43%

#### 150kW Air Blast Cooler

Cooling load 91kW Power consumption 10.4kW 15°C ambient air temperature

#### 150kW Chiller

Cooling load 59kW Power consumption 24kW 15°C ambient air temperature



## No Free Cooling

Total power consumption 60kW Power savings 0%

## 150kW Air Blast Cooler

Cooling load 0kW Power consumption 0kW 18°C ambient air temperature

#### 150kW Chiller

Cooling load 150kW Power consumption 60kW 18°C ambient air temperature