

# Der eChiller120 – machine cooling with 0% direct CO<sub>2</sub> Emissions



Bluezero® inside

## Case Study

eChiller120 with adiabatic re-cooling system compared to a conventional aircooled chiller (with free cooling function)



## The eChiller benefits at a glance

### 1. Concept Description

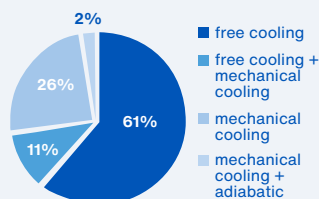
- **Cooling capacity:** 114 kW
- **Chilled water temperatur:** 20°C
- **Cooling water temperature:** 35°C
- **Operating hours:** 8760 h (3-shift-operation)
- **Weather data:** London

### 2. Evaluation

- **eChiller annual performance factor:** 33.8
- **system annual performance factor:** 23.8
- 40% improvement compared to a standard chiller

### 3. Profitability

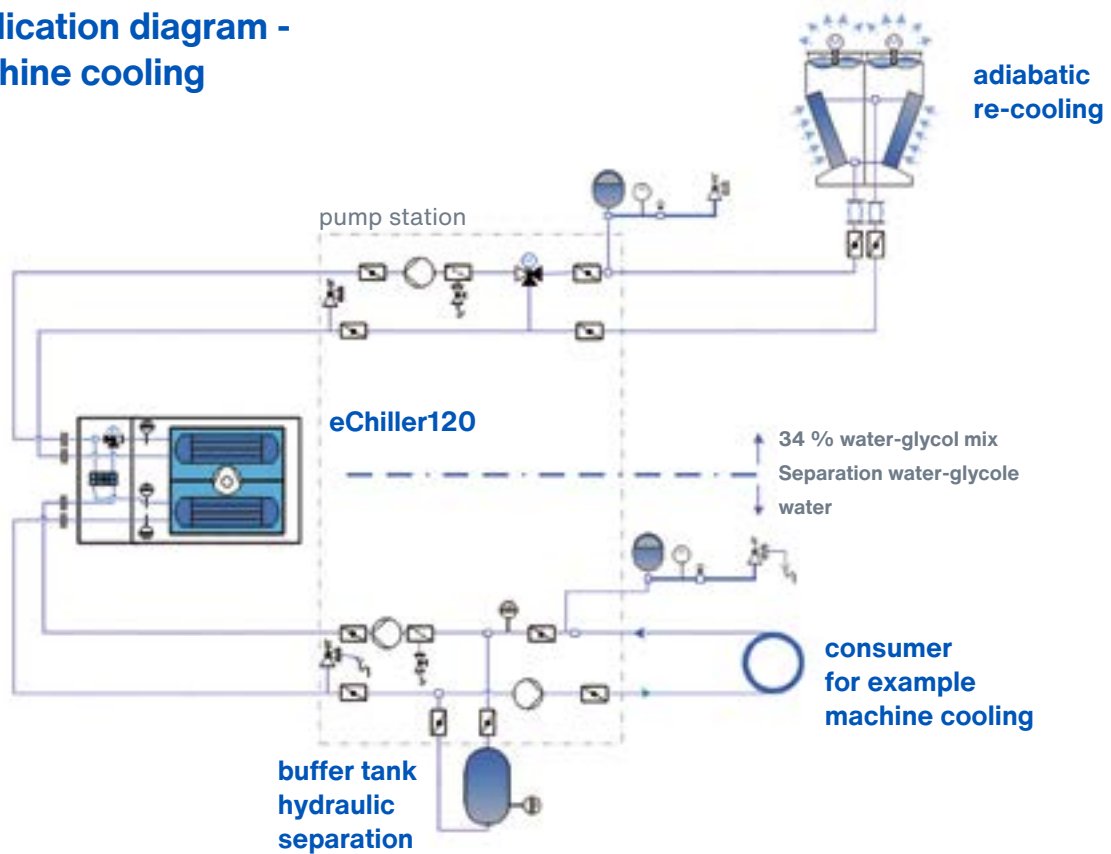
- free cooling hours > 61%
- operating costs of the adiabatic re-cooling system are included



### Application Benefits

- high part load efficiency
- stable supply temperature
- small temperature tolerance band
- modular and scalable setup
- energy-optimized recooling control system with integrated free cooling function
- Unrestricted installation
- no regulations to apply
- the refrigerant water (R718) is available at low cost

## Application diagram - machine cooling



### Adiabatic System

- Only a few hours of wet operation
- Increased energy efficiency

### Options

- Extended part load control
- sequential controller to enable multiple unit operation
- Cooling water / chilled water plant control system
- Energy consumption analysis and report



Find out more about the new eChiller 120 and typical application areas here:  
[echiller120/efficient-energy.de/en](http://echiller120/efficient-energy.de/en)