



Free cooling

Solutions to cut costs while helping the environment



Free cooling offers an environmentally friendly way to cool – with clear economic benefits. Cooling applications relying on free cooling have been installed with positive results in many countries around the world. Suitable free cooling sources include ice and snow storage as well as air and water from rivers, lakes, deep oceans or ground water.

Used mainly for air conditioning and process cooling, free cooling can cover cooling requirements during winter, when the free cooling source has a lower temperature than cold water. In spring and autumn, a combination of free cooling and chiller-produced cold is used. A chiller supplies the total cooling requirement during summer, but uses the free cooling source to cool the condenser.



From source to solution

The free cooling source water is pumped into a substation and filtered to remove foreign objects before passing through a heat exchanger in the cooling liquid circuit. The cooling liquid then passes through a refrigeration unit containing a condenser and an evaporator, which chills the water in the air conditioning circuit. The water is then pumped away to the individual buildings.

Alfa Laval's extensive knowledge of corrosive media has resulted in products that can handle aggressive cooling media like seawater and brackish water.

Reduce refrigerant usage – and costs

Free cooling offers many financial and environmental advantages. When utilizing free cooling, it is possible to minimize the use of ecologically harmful refrigerants. Free cooling is also a way to cut down on electricity costs. In some cases, energy consumption can be reduced by up to 75%. Since electric power production often involves air pollution, this is as good for the environment as it is for your bottom line.

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.