

Let's power your business

Pon Energy Rental

Temperature Control



pon
ENERGY RENTAL

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Process cooling

What is process cooling?

Process cooling refers to techniques and systems used to remove excess heat generated during industrial processes, ensuring optimal operating conditions for equipment and products. Process cooling plays an important role in a number of industries, including manufacturing, chemical processing, food and beverage and pharmaceuticals.

The main purpose of process cooling is to maintain specific temperature ranges for machinery, products and materials, avoiding overheating that can lead to equipment failure, reduced efficiency or compromised product quality.

Key components in process cooling

Cooling systems: These include chillers, cooling towers and heat exchangers. Chillers cool down liquids using mechanical cooling, while cooling towers disperse heat into the atmosphere. Heat exchangers transfer heat between two or more fluids without mixing them and keeping them separated.

Refrigerants: These are substances used in refrigeration systems to absorb heat. The choice of refrigerant can affect efficiency and environmental considerations. We use an environmentally friendly (R32) in many of our units.

Pipes and distribution: A network of pipes transports the cooled liquids to different parts of the plant and ensures that all relevant equipment is adequately cooled.

Control and monitoring: Advanced sensors and control systems monitor temperatures and flow rates, enabling automated adjustments to maintain the desired cooling level.

The importance of process cooling

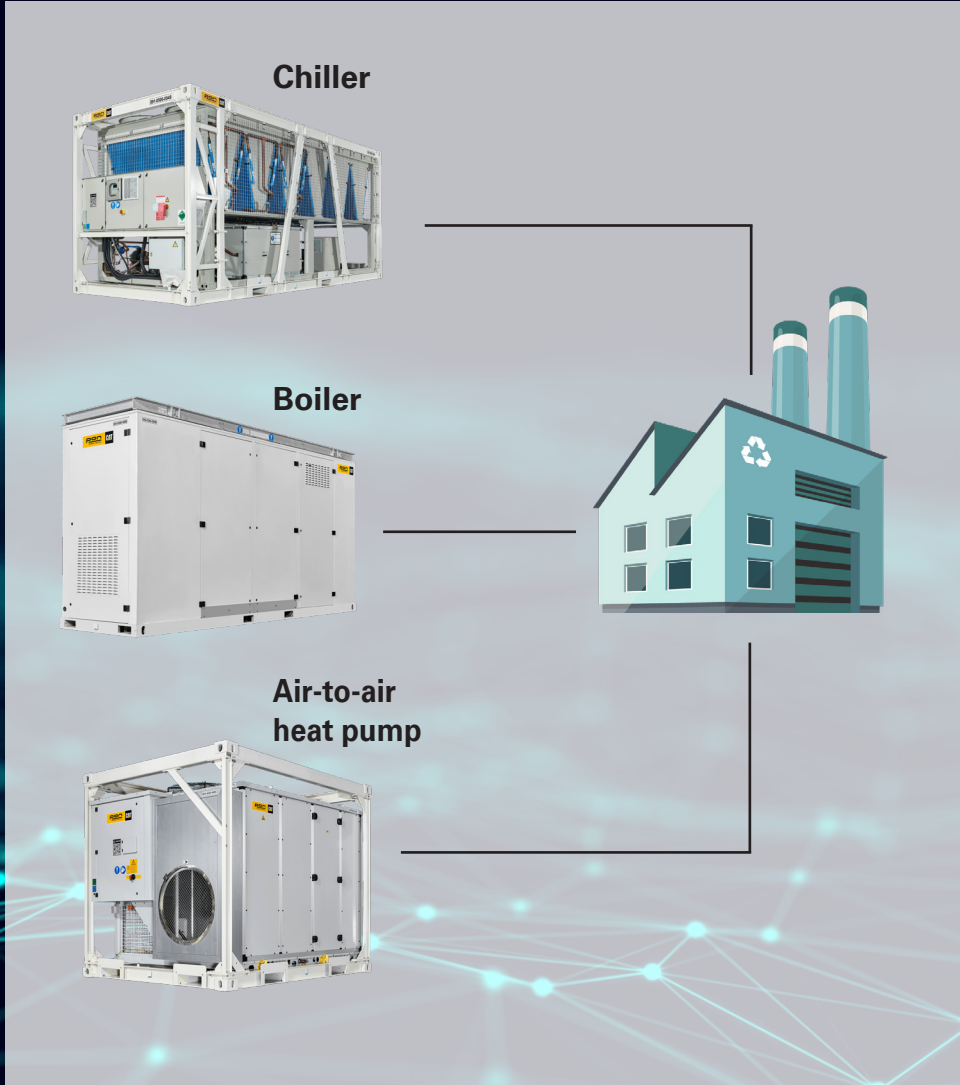
Efficiency: Proper cooling maximizes the efficiency of industrial processes, reducing energy consumption and operating costs.

Security: By preventing overheating, process cooling helps to ensure the safety of personnel and equipment.

Quality control: Maintaining the correct temperatures prevents product defects and ensures consistent quality.

Compliance with regulations: Many industries are subject to strict regulations on temperature control and emissions, making efficient cooling systems essential.

In short terms, process cooling is an important aspect of many industrial operations, contributing to efficiency, safety and product quality. Properly designed and maintained cooling systems are critical to the smooth running of modern manufacturing and process facilities.



Cooling & melting of ice rinks

Our rental solutions for ice rinks

We offer powerful and flexible solutions for ice rink cooling and melting, ensuring optimal ice conditions or fast de-icing, depending on your needs. Whether you're managing an indoor arena, a temporary outdoor rink, or preparing for seasonal transitions, our rental equipment provides the precise temperature control required to both maintain ice quality and accelerate the melting process.

Our cooling systems are designed to keep ice systems smooth, stable and ready for use by athletes or skaters. When the time comes to dismantle the rink, our heating systems can efficiently melt the ice, allowing de-icing to take place quickly and in a controlled manner. This minimizes downtime and makes it easier to convert the area for other purposes.

How ice rink cooling works

When cooling ice rinks, we supply either a chiller or a heat pump, in addition to a heat exchanger that ensures the correct temperature. This is connected to the refrigerant, which freezes the ice rink and ensures an even and stable temperature. We can either deliver a solution for a temporary ice rink, or a permanent installation that needs extra cooling capacity.

How ice rink melting works

When melting ice rinks, we supply either a boiler or a heat pump, as well as a heat exchanger that maintains the correct temperature for the refrigerant in the same way as for cooling. When the hot water is run through the refrigerant, the ice melts in a controlled manner and the water can then be drained from the ice rink.

Temporary rental solutions for maintenance

If the permanent refrigeration system needs maintenance, a temporary rental solution can be a good alternative to avoid having to melt the ice. This is a good and safe way to keep the system running while the necessary maintenance is carried out.

With us at Pon Energy Rental, you get reliable, energy-efficient solutions, backed by expertise that ensures the process of cooling or melting ice rinks runs seamlessly allowing you to achieve your operational goals while maintaining high performance.

Cooling



Heat exchanger



Chiller



Heat pump

Melting



Heat exchanger



Boiler



Heat pump

Concrete cooling

Why do you need to cool concrete?

During the curing process, the concrete generates heat through hydration, leading to high internal temperatures. This heat build-up can create stresses in the concrete, leading to cracking, reduced strength and potential long-term damage. Cooling the concrete is important to control the temperature rise and avoid thermal stress, resulting in a more uniform cure and a more durable structure.

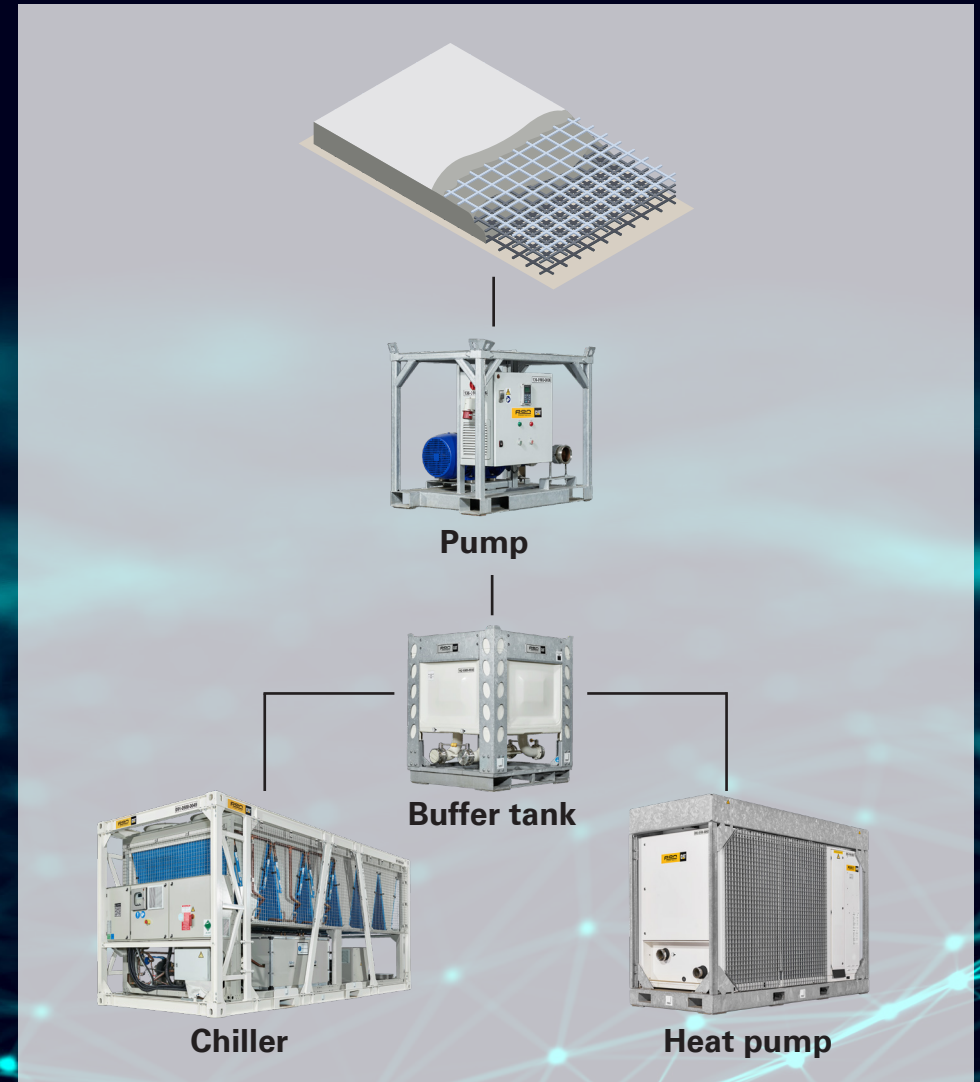
Our solutions

We offer modern and energy-efficient cooling solutions and expertise for effective temperature control.

Cooling systems with cold water: Precise temperature control through high-efficiency chillers and heat pumps that keep the concrete mix at ideal temperatures from the start.

Water-cooled chillers and Glycol systems: Our cooling systems are designed for extensive cooling needs and ensure stable performance even under high demand.

Technical support 24/7: With us at Pon Energy Rental, you don't just get equipment; you also get the support and expertise needed to monitor and adjust the temperature to changing conditions.



Temporary structures

Why do you need temperature control for temporary structures?

Temporary structures require reliable temperature control to maintain comfort, prevent equipment failure and protect against extreme weather conditions. Fluctuating temperatures can affect productivity, result in high energy costs and, in some cases, damage equipment. We offer scalable and efficient temperature control solutions that ensure comfort, protect assets and maintain operational efficiency- without compromising on flexibility.

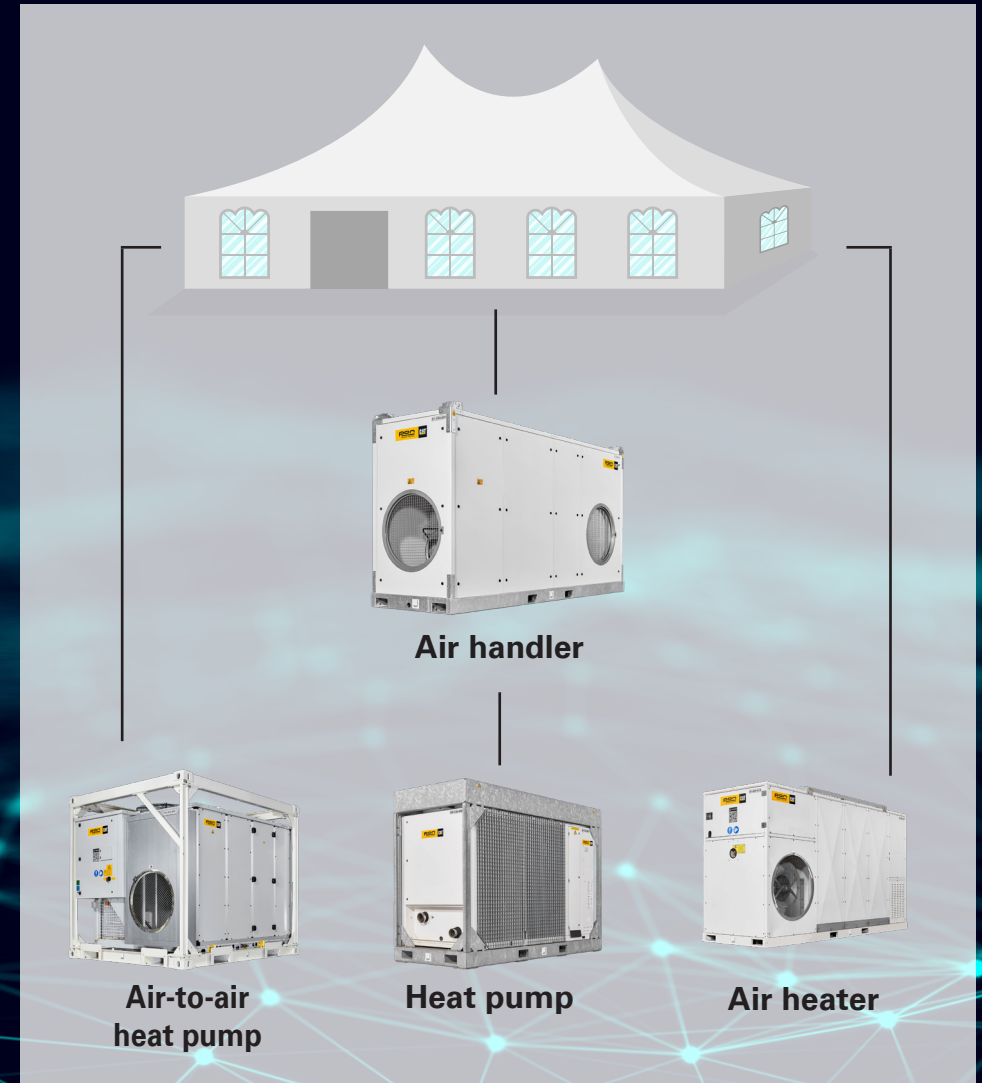
Our temperature control solutions

We have a wide range of temperature control solutions that can be customized to specific needs, including:

Heating and cooling units: From large heat pumps to compact chillers, our units provide consistent temperature control for all types of structures.

Air conditioning and ventilation solutions: Create a comfortable working environment with air-to-air heat pumps and air distribution units that maintain the ideal air quality.

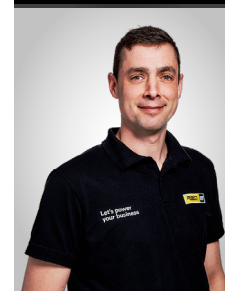
Air quality and dehumidification: Our solutions dehumidify the air so that the climate is comfortable in both cold and warm seasons.




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