Whether cold or warm: The SPECTRUM always does exactly what the process needs.

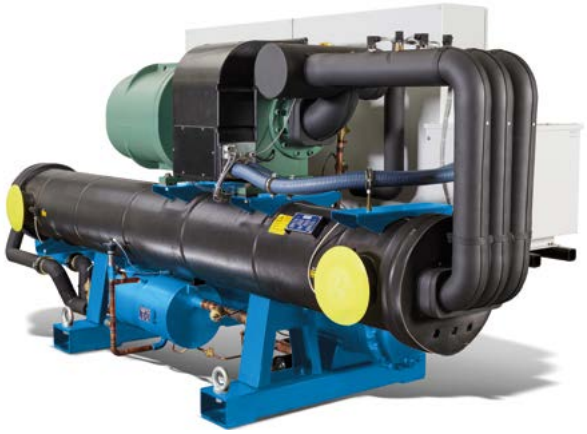
Use in industrial process cooling when simultaneously heating water.

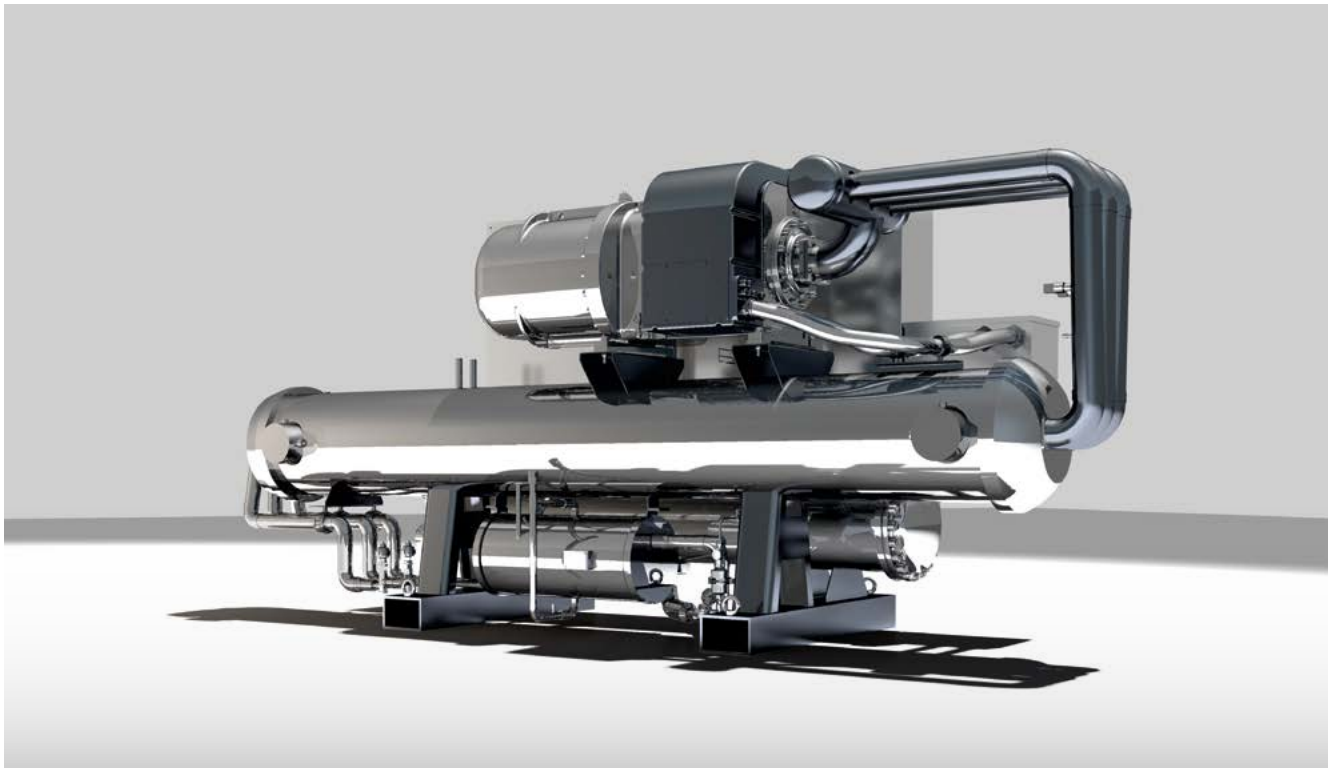
An impressively wide spectrum

The SPECTRUM from ENGIE Refrigeration has a wide range of uses and is extremely well suited to being used as a unit for industrial process refrigeration. At the same time it can also make warm water available. As is the case with any heat pump, there is a fixed relationship between the cold and the heat which is generated: The thermal output is approx. 230 kilowatts (kW), approx. 290 kW or approx. 360 kW with temperatures over 60 °C and simultaneous refrigeration performance of approx. 130 kW, approx. 160 kW or approx. 190 kW at -10°C. These are the maximum values which can be achieved when implementing the models. One additional benefit: Thanks to the open flash economiser that SPECTRUM uses, the chilling and heating performance can continuously be regulated by up to approx. 20% of the nominal power.

For milk to stay fresh an beer to remain tasty

It all comes down to the correct temperature: During the beer brewing process or in the manufacture of diary products, the temperature has to reliably remain either hot or cold – and with a great degree of precision. SPECTRUM reliably supports industrial manufacturing processes and can also be used in drying plants, such as in the timber industry, and even as a heat pump with an ice storage tank.





The characteristics of a specialist in efficiency

The SPECTRUM's high performance core is an open flash economiser that facilitates a higher refrigeration performance compared to conventional chillers with a speed-controlled screw compressor - even if it uses a subcooler economiser. Equipment operators profit from higher Seasonal Energy Efficiency Ratio (SEER) values in the refrigeration segment, and higher Seasonal Coefficient of Performance (SCOP) values when used as a heat pump.

In addition, the SPECTRUM also offers a SIMATIC S7 control unit that corresponds with the most current industry standard and is also compatible over the long-term, expandable on a modular basis, scalable, vibration-resistant and maintenance-free.

The SPECTRUM lives up to its name as it can always be adjusted to the customer's requirements or application and can cover a wide utilisation and temperature spectrum. There is also the option of dividing the condenser and thus adapting the available heat to the application regardless of the required chiller performance.

SPECTRUM´S benefits

- Optimal primary energy utilisation whilst simultaneously using the side that heats and refrigerates
- Minimal energy costs in comparison to separate systems for heating and refrigerating
- Lower investment costs for the necessary infrastructure compared to separate systems for heating and refrigerating
- Cost savings by adapting to the actual cooling and heating required
- Reduced space needed for the technical building installation
- Lower maintenance requirements
- Funding possibilities through government programs

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