

EVOLUTION IN SUGAR COOLING

INNOVATIVE TECHNOLOGY FOR ENERGY-EFFICIENT OPERATIONS



Optimized sugar cooling

The sugar cooling process is energy-intensive. Heat transfer technology developed by Solex Thermal Science allows you to significantly reduce energy consumption and the installation footprint within your operations.

Solex is a global provider of customized heat transfer solutions for bulk solids to a wide range of industries, including more than two decades specifically working with sugar beet and cane

The Solex advantage

For the sugar processing industry, Solex provides a solution using cutting-edge, energy-efficient technology to cool sugar — an important step to improving the quality of the sugar. This allows you to direct package and ship your sugar products to far-reaching destinations without any product caking.

Solex's advanced thermal modeling, rich reference list and 30 years of experience in this field makes Solex the ideal partner for your next sugar cooling installation.



PROPRIETARY TECHNOLOGY THAT MAXIMIZES ENERGY EFFICIENCY

Energy reduction & product integrity

The Solex heat exchanger technology has an average consumption of 0.4 kW.h/tonne of sugar, making it more energy efficient in comparison to traditional technologies such as fluid beds and rotary drums, which typically consume between 4 – 5 kW.h/tonne.

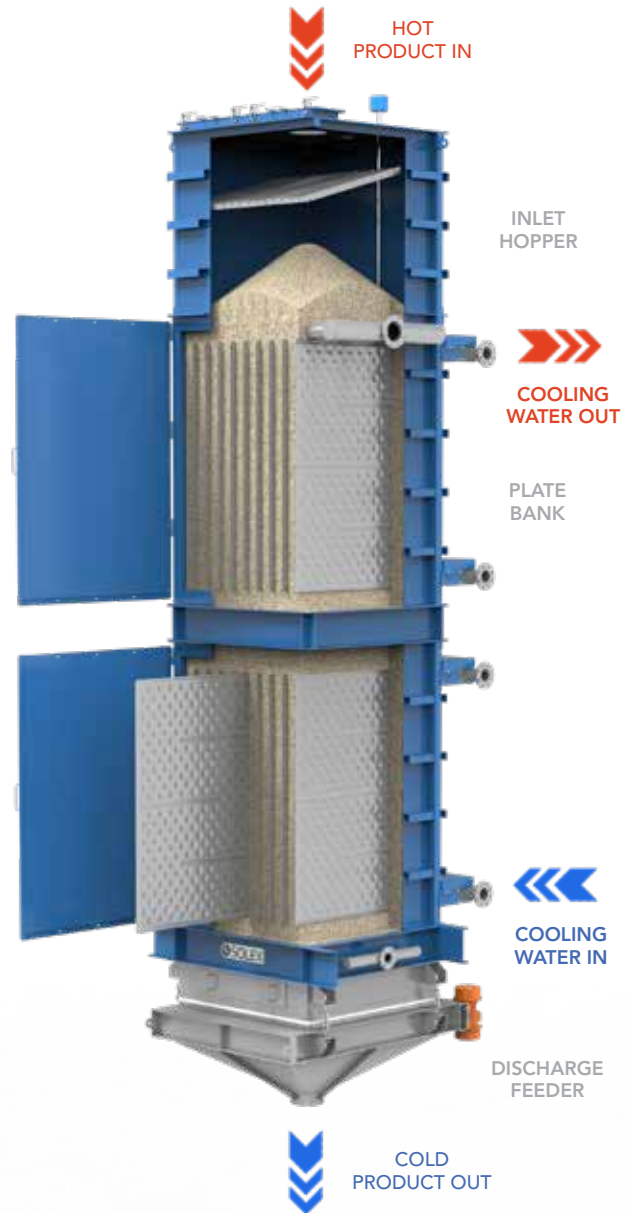
There is zero product contamination and degradation for the crystals flowing through the cooler, as the slow and controlled movement prevents product attrition. The Solex design, which uses indirect heat exchange, eliminates the risk of bacterial, odor and moisture contamination, as well as the need for large fans and downstream pollution control equipment.

Compact design & operational flexibility

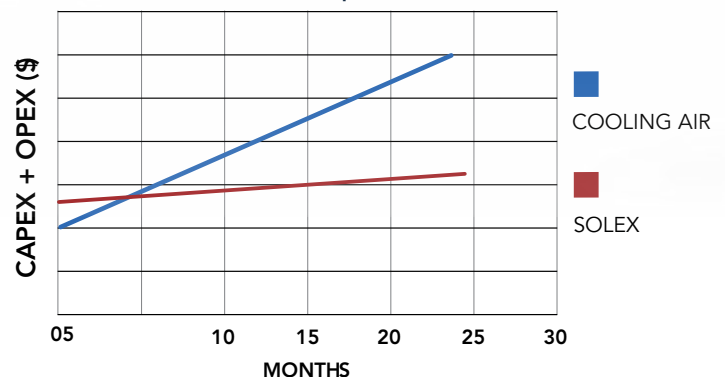
The innovative and compact design based on welded heat exchanger plates allows the Solex unit to be easily integrated into a new plant or retrofitted into existing sugar plants. Within existing plants, the Solex sugar cooling unit can be installed as a secondary cooler, in conjunction with the existing equipment. Solex cooling technology also lends itself to capacity increase projects. Through the modular design of the Solex unit, additional plate banks can be stacked vertically to increase capacity. An interesting option to increase plant capacity is to convert the existing dryer-cooler to a 100% dryer followed by a Solex sugar cooling unit.

Storage & packaging

The indirect water-cooling design of the Solex unit allows the sugar to be cooled to a specific temperature as required by market conditions. This enables constant temperature storage and direct packaging year round independent of ambient temperatures and weather conditions. In some cases, it may also eliminate the need for conditioning silos.



Total cost of ownership



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