OPTIMIZED SUGAR COOLING

The sugar cooling process is an energy-intensive process. Solex technology allows you to significantly reduce energy consumption and the installation footprint in your operations.

Solex is a worldwide provider of customized heat transfer solutions for bulk solids to a wide range of industries.

THE SOLEX ADVANTAGE

Solex provides a solution for the sugar processing industry, using cutting edge, energy efficient technology to cool sugar — an important step to improve the quality of the sugar. This allows clients to direct package and ship their sugar products to far reaching destinations without any product caking. Solex’s advanced thermal modelling, rich reference list, and 15 years of experience in this field make us the ideal partner for your next sugar cooling installation.
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.

The slow and controlled movement prevents product attrition, resulting in no product contamination and degradation for the crystals flowing through the cooler. The Solex design, which uses indirect heat exchange, eliminates the risk of bacterial, odour, 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 is also beneficial in 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 OWNERSHIP

SOLEX VS. CONVENTIONAL TECHNOLOGIES