



BULK SOLID HEAT-EXCHANGER

SUGAR

The heat treatment is of fundamental importance in any phases of sugar transformation and its cooling before storage is one of the most delicate and critical steps.

In fact, if not carried out correctly, it can lead to a deterioration to the product's quality.

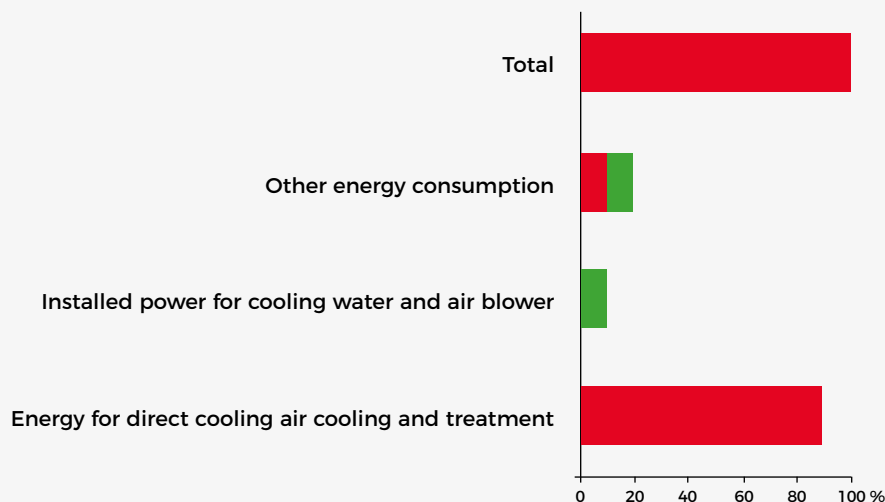
Furthermore, the process of cooling the sugar is extremely expensive from an energy point of view and is one of the main sources of expenditure for refineries.

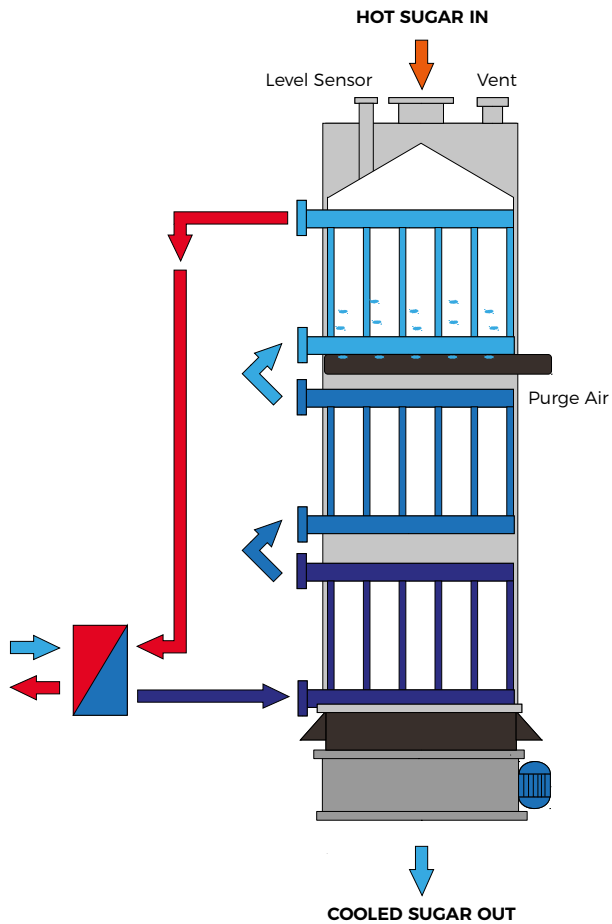
With the FIC technology for BSHE, these problems are solved in a definitive way.

In fact, compared to traditional systems (typically fluid beds or rotary systems), the FIC Solid Coolers operate with flow by gravity and in this way the granules of sugar are not subject to collisions and forces one to the other, so their structure is kept intact. In addition, the system does not use air volumes, as the heat exchange is indirect and this allows to eliminate any possible contact with impurities or pollutants from outside.

Energy consumption is drastically reduced, even up to 70-90%, thanks to the different type of indirect heat exchange, which does not require significant volumes of air to be moved and cooled. Furthermore, the final thermal level of the product is constant and guaranteed by the prolonged residential time of the product inside the Tower. This allows to store and pack the product without problems related to product sticking.

ENERGY CONSUMPTION BSHE VS. TRADITIONAL SYSTEMS





Issues of emissions and odors are also definitely avoided.

The modular construction and the reduced overall dimensions allow a perfect integration into existing plant in retrofit situations, in order to reduce as much as possible the operating costs of the plant, as it is also the ideal for new installations.

With the BSHE it **is possible to operate the plant continuously** and avoiding high maintenance costs.