



BULK SOLID HEAT-EXCHANGER

OIL SEEDS

Extracting oil from vegetable seeds is normally a process characterized by having low-temperature energy streams in the plant that with traditional heat-exchange systems cannot be recovered.

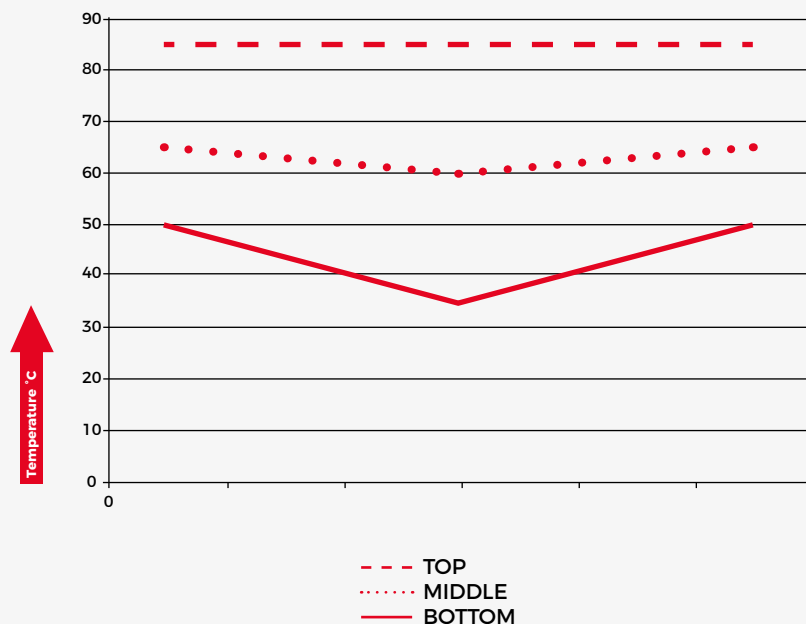
This in the general energy balance of the plant is an important and not negligible aspect: the process is in fact typically one of high energy consumption.

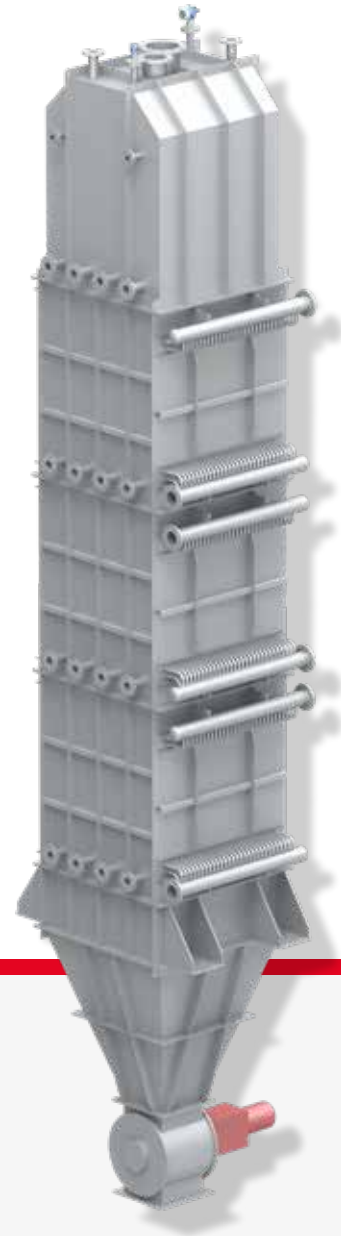
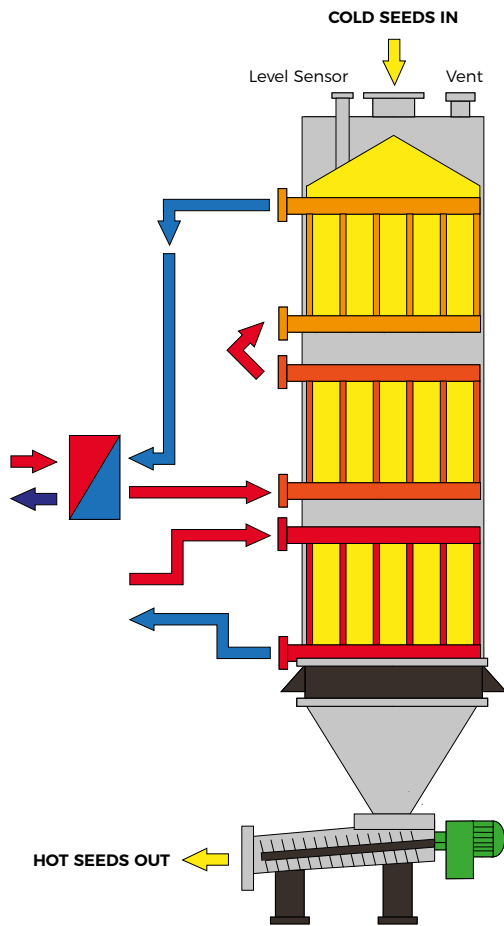
With the FIC BSHE indirect heat exchange system, that uses thermal pillow plates, the situation can be improved considerably thanks to the possibility to use these low temperature sources to preheat the feed water to the BSHE plate heat exchangers

The BSHE by FIC designed for the preheating of vegetable seeds are in fact supplied including skirts with heat exchange systems, custom made for individual cases in order to recover as much energy as possible from any plant source, that would otherwise be lost.

This possibility is excluded in traditional direct heat-transfer systems (eg fluid bed) that need to heat huge air flows and therefore the energy demand is high and at the higher thermal levels.

TEMPERATURE PROFILES





FIC BSHEs are customized according to the specific needs of the plant, to the type of seed to be treated in terms of physical-chemical properties and their granulometry;

with respect to similar systems using pipes, the use of the plates allows to have, at the same volume, double the heat-transfer surface, and this considering also the high exchange capacity given by the high turbulence conditions reached in the plates results in a well higher heat-transfer efficiency.

FIC's BSHE for oil seeds conditioning guarantee a high quality of the product in terms of constant and uniform thermal profile as well as of the humidity at the feeder, thanks to the high residential times in the Tower.

Furthermore all the problems related to emissions of vapors and odors are avoided. Installation takes place in quick times and with limited costs and operating costs are reduced compared to other traditional systems.

The modular construction ensures a perfect integration with existing systems for retrofitting, as well as is the ideal solution for new installations.