HEATING & COOLING SOLUTIONS FOR MINERALS & ABRASIVE MATERIALS

INNOVATIVE TECHNOLOGY FOR ENERGY-EFFICIENT OPERATIONS



Effective heating & cooling for minerals

Accurate and even temperature profiling is an important step in the heating and cooling of minterals and sands for the success of downstream processes.

Solex Thermal Science is a global provider of moving bed heat exchangers that leverage vertical plate technology to provide customized solutions to a wide range of industries.

The Solex Advantage

For the minerals and abrasive materials processes, Solex offers high-efficiency heat transfer solutions using proprietary vertical plate technology. The Solex heat exchanger delivers results while providing low energy consumption and near-zero emissions.

Most importantly, the technology ensures the accurate and even temperature profile needed in high-quality coating applications. Solex specializes in minerals such as nickel oxides, carbon black, coal, iron, copper, calcium carbonate and chromite to name a few.







Low abrasion

Solex vertical plate technology is capable of heating and cooling highly abrasive and dense materials without degradation or wear to the exchanger or heat transfer plates. The mass flow design of the heat exchanger ensures uniform material flow controlled at low velocities.

Accurate & uniform temperature

Many processes require accurate and even temperature profiles during heating and cooling. Regardless of whether the product requires heating or cooling, Solex thermal modeling capabilities guarantee even temperature profiles for the finished product.

Suitable for high temperatures

The unique design of Solex's technology allows for the effective handling of high temperature products up to 1,500°C.

Near-zero emissions & increased energy efficiency

As air is not used in the heating or cooling process, Solex technology operates without the need for fans, blowers and associated air handling equipment. When compared with traditional technologies such as rotary drums or fluid beds, significant cost savings are found in the Solex unit, as it requires up to 90% less energy to operate since powerful motors for air flow are not required.

Compact & modular design

The vertical configuration of the Solex heat exchanger results in a small installation footprint. The unit can easily be integrated into new plants and retrofitted into existing facilities, making it ideal for debottlenecking and capacity increases. The modular design provides operational flexibility, helping to streamline facility processes.





