

UNIFORM HEATING & COOLING SOLUTIONS FOR PRECURSOR & ACTIVE BATTERY MATERIALS

INNOVATIVE TECHNOLOGY FOR ENERGY-EFFICIENT OPERATIONS



Effective heating & cooling for battery materials

Accurate and uniform temperature control with no particle degradation, no material contamination and operation under controlled atmosphere is critical to maintain the quality of precursor and active materials.

Solex Thermal Science is a worldwide provider of customized heat transfer solutions for granular particles to a wide range of industries.

The Solex advantage

For battery active material manufacturing and cell manufacturing processes, Solex offers high-efficiency heat transfer solutions using proprietary heat exchanger plate technology. The Solex heat exchanger delivers results while providing low energy consumption and near-zero emissions.

Solex technology ensures the accurate and even temperature profile needed in high-quality mixing and coating applications. Solex specializes in minerals such as lithium powders and graphite to name a few.



PROPRIETARY TECHNOLOGY THAT MAXIMIZES ENERGY EFFICIENCY

Low abrasion

Solex heat exchange technology is capable of effectively 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 technology ensures uniform material flow controlled at low velocities. Lower abrasion on the equipment and minimal moving parts reduces the possibility of metal contamination of your powders.

Accurate & uniform temperature

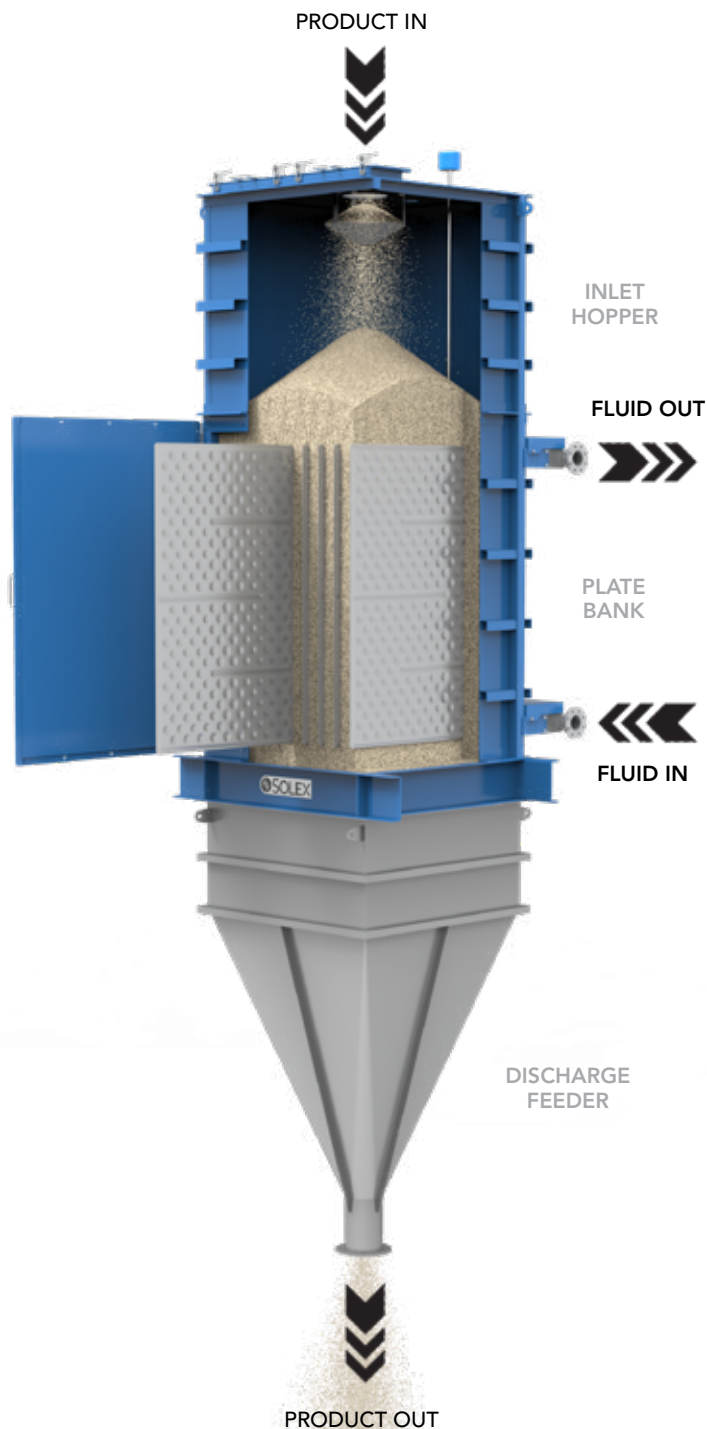
Many processes require accurate and even temperature profiles during heating and cooling. For example, the control and consistency of the particle to particle temperature is very important for certain processes where coatings or chemicals are being applied to a solid material or substrate. Regardless of whether the product requires heating or cooling, Solex thermal modeling capabilities guarantee even temperature profiles for the finished product.

Compact & modular design

The vertical configuration of Solex's heat exchange technology results in a small installation footprint. Solex units can easily be integrated into new plants and retrofitted into existing facilities, making them ideal for debottlenecking and capacity increases.

Near-zero emissions & increased energy efficiency

As air is not used in the heating or cooling process, Solex heat exchange technology operates without the need for fans, blowers and associated air-handling equipment. Solex heat exchangers can be built to be gas tight, operating under vacuum or with controlled atmosphere on the solid side. 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.



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