

HIGH-TEMPERATURE SCREW HEAT EXCHANGER FOR ELECTRICAL PROCESS HEAT. ■

The **LiquiCore™ High-Temperature Screw Heat Exchanger** precise and efficient thermal treatment of bulk solids in the range of approx. 230 °C to 600 °C. The system extends the application limits of conventional screw heat exchangers and closes the gap between classic heating screws and high-temperature incinerators.

■ DATEN

- ➔ Temperature range 230 °C to 600 °C
- ➔ Homogeneous, reproducible high-temperature process control
- ➔ Fully electric heating concept
- ➔ High energy efficiency and fast controllability
- ➔ Suitable for demanding environmental and high-temperature applications

LiquiCore™ is suitable for processes such as pyrolysis, calcination, high-temperature drying, and the thermal activation of solids. A key area of application is the thermal desorption of persistent pollutants (e.g. PFAS), for example in the treatment of contaminated soil, sewage sludge, or the reactivation of loaded adsorbents.

The technology is based in a newly developed electrically heated screw shaft with a hermetically sealed core. Integrated heating elements are embedded in a low-melting metal, which enables rapid and homogeneous heat distribution over the entire shaft length. Optionally, the trough jacket can also be electrically heated.

Fully electric operation eliminates the need for heat transfer fluids and reduces system complexity, maintenance requirements, and potential leakage risks. At the same time, the system enables precise temperature control and short response times.

The machine is designed to customer specifications using heat-resistant materials, optimized screw geometries, and integrated control and regulation technology.

