



# EFFICIENT VACUUM DRYING FOR LITHIUM-ION BATTERIES



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# THE RET VAKUUM DRYER

## Safe handling of electrolyte for optimum recycling results

Create the ideal basis for the best black mass quality with the low-emission recovery of electrolytes.

Reckelberg's vacuum drying technology offers a pioneering solution that not only improves the safety and environmental compatibility of your recycling process, but also contributes significantly to cost efficiency and material recovery. By integrating our innovative drying system into your operations, you can maximize the reuse of valuable raw materials and strengthen your market position at the same time.

# EFFICIENT VACUUM DRYING

Discover our environmentally friendly and safe method for vacuum drying lithium-ion batteries that redefines quality and efficiency in the recycling process.



"With RET vacuum drying, you can achieve safe, mechanical processing of the pre-shredded battery material while complying with all current and future emission limits."

Dr. Norbert Osterthun | Process Engineer

## HIGHLIGHTS

- **Safety:** Safe and low-emission recovery of volatile organic electrolytes
- **Quality:** Low temperatures in the vacuum dryer ensure high-quality black mass
- **Fire risk minimization:** The drying process drastically reduces the fire risk in the further treatment
- **Increased efficiency:** Efficient processing and material recovery, e.g. through parallel redundant drying

# EFFICIENT INERTING AND GRAIN SIZE OPTIMIZATION



Reckelberg Environmental Technologies offers modern vacuum dryers that safely dry lithium-ion batteries by isolating the flammable electrolyte. Thanks to an innovative airlock system and a powerful four-shaft rotor shear, the quality of the recycling process is ensured. The RET vacuum dryers efficiently vaporize the volatile organic battery electrolytes at low temperatures, which increases safety and improves end product quality.

# SUSTAINABLE RECOVERY AND EMISSION CONTROL



The dryer efficiently captures the vaporized electrolytes and condenses them using an innovative multi-stage heat exchanger system. This allows the electrolytes to be efficiently collected and recovered in liquid form, which promotes the circular economy. A sophisticated exhaust air purification system ensures that emissions remain below EU limits and automatically optimizes the dwell time and drying process to achieve an ideal result with minimized inert gas consumption. After drying, the cell components are ideally prepared for further processing.

# DO YOU HAVE ANY QUESTIONS OR WOULD YOU LIKE TO FIND OUT MORE?

MORE DETAILS & INFORMATION  
ABOUT **DISCHARGE**



MORE DETAILS & INFORMATION  
ABOUT **DRYING**



MORE DETAILS & INFORMATION  
ABOUT **SEPARATION**



## **CONTACT**

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