

Drying of Cadmium hydroxide SAFT, Oskarshamn, Sweden

This project

SAFT, a global player in the market for rechargeable batteries, decided in 2005 to up-grade the production line of e.g. Cadmium hydroxide to a more energy and environmentally oriented process. This included a new washing step followed by mechanical dewatering and drying.

YEAR OF DELIVERY: 2006

TECHNOLOGY:

One-step steam dryer, Indirectly heated drum – Bojner Systems Heating medium: 3 bar steam

TREATED MATERIAL:

Fine particulate Cadmium hydroxide powder EVAPORATION CAPACITY: approx. 0,1 t/h DRYNESS IN/OUT (w%): approx. 85 / 97 HEAT SOURCE: 3 bar steam from the factory grid with possibility to increase to 4 –

with possibility to increase to 4 – 8 bar HEAT RECOVERY:

Gas washing only GAS / DUST CLEANING: Bag filter, electrostatic filter SCOPE OF DELIVERY: Material input and discharge, dryer,

steam components, temperature monitoring, etc.

Alternative solutions

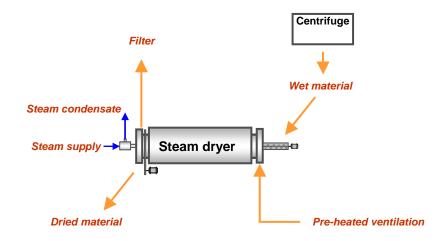
We offer custom made systems for drying of all types of solid materials – indirect systems in one or two steps being our specialty. Besides exhaust gases, steam, thermal oil, etc can be applied as heat source. We also offer direct drum drying which is a simple robust technology, however with less opportunities for heat recovery and elimination of fire hazards. Please get in touch with us and explain your situation!



A rotary dryer, in this case heated with 3 bar steam from the grid, dries this very sticky and temperature sensitive material after a mechanical dewatering step. The dryer generates ventilation gases with a relatively high dew point. The moist ventilation gases minimise the carry over of fines from the dryer to the subsequent filter and gas washing steps.

The rotary dryer perimeter forms the dryer heat surface, which is connected to a rotary 2-phase joint for the heating medium. Preheated air is ventilating the dryer in order to evacuate the evaporated water at a slight, continuously maintained vacuum.

This system combines excellent energy efficiency, operational availability, environmental protection and overall economy.





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