

## Gypsum dewatering technologies at flue gas desulfurization plants

Maria HARJA<sup>a\*</sup>, Lacramioara ISTRATI<sup>b</sup> and Gabriela CIOBANU<sup>a</sup>

<sup>a</sup>*Faculty of Chemical Engineering, "Gh.Asachi" University of Iasi, 71D. Mangeron Blvd, Iasi, Romania*

<sup>b</sup>*Department of Chemistry, University of Bacau, 157 Calea Marasesti, Bacau, Romania*

---

**Abstract** Recovering gypsum from flue gas desulfurization (FGD) plants is becoming more important as the technical feasibility of substituting FGD gypsum for natural gypsum in traditional applications such as wall board, cement and soil conditioners has been demonstrated. An important aspect of gypsum recovery is the solid-liquid separation technology.

This paper discusses three technologies to dewater and dry gypsum. These are centrifuges, continuous belt filters (CBF) and continuous-indexing belt filters (CI-BF) and rotary vacuum filters (RVF). Each technology is examined for their ability to filter, wash and dry the gypsum to meet the moisture content for saleable FGD gypsum comparing with the natural gypsum. The paper concludes that power plant engineers should review before deciding on a certain solid-liquid separation technology.

*Keywords:* gypsum, dewatering, desulfurization, centrifuges, continuous belt filter, rotary vacuum filter.

---