



#1205

Urea Granulation Circuits Simulator

UGCSIM: A SOFTWARE DEVELOPED TO SIMULATE UREA
GRANULATION PLANTS

DESCRIPTION

Dynamic simulation software developed for granulation urea plants based on fluidized-bed granulation technology. The simulator includes ad-hoc models for the main operation units: multichamber fluidized-bed granulator, fluidized-bed cooler, double-deck vibrating screens & double-roll crushers.

APPLICATIONS

Analysis of design changes or flowsheet variations | Training tool | Sensitivity analysis | Analysis of different open- or closed-loop operations

ADVANTAGES

- Unique simulator completely developed for urea plants
- Mass flowrates, PSDs and temperatures of solid streams are predicted against time
- Good predictions of product SGN, UI and other size fractions
- Drag-and-drop user interphase
- Easily tailorable to urea granulation plants under operation

DEVELOPMENT STATUS

Full version available . Successful validation of UGCSim against experimental data from a large-scale urea granulation plant.

RESEARCHERS

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