



SEPARATION

UREA GRANULATION WITH HIGH AVAILABILITY

UREA GRANULATORS FOR
ADVANCED FERTILIZERS

ANDRITZ

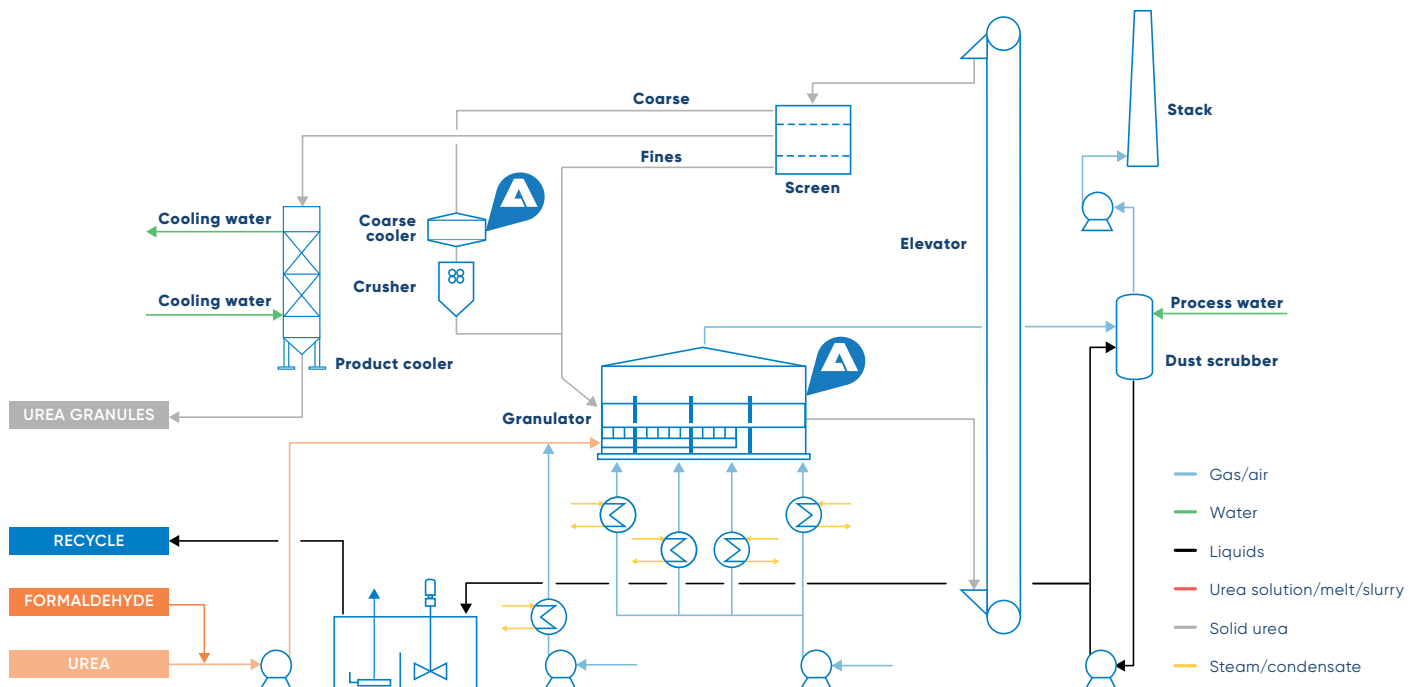
ENGINEERED SUCCESS

High availability for urea granulation

Spray granulation in a fluid bed is a smart technology to combine several process steps in a single piece of equipment. Whenever it is reasonable or necessary to start thermal drying from a liquid phase, spray granulation is the first choice. Based on this technology, ANDRITZ in cooperation with Stamicarbon licence technology has developed a urea granulator with design features allowing highest equipment availability to produce advanced fertilizers.

The urea melt is atomized in suitable nozzles and sprayed onto the surface of the granules inside the fluidized bed. As the urea melt solidifies, the granules grow in layers, like an onion. The result is a stable and spherical granulate with controlled properties like shape, density, hardness, and particle size.

ANDRITZ has provided urea granulators and granulate coolers for nearly 20 years, using Stamicarbon granulation technology with line capacities between 1,200 and 3,850 metric tons per day. Urea granulators are used mainly by fertilizer producers and agrochemicals professionals in order to convert urea melt into a granular bulk material suitable for economical and environmentally friendly soil fertilization.



Stamicarbon process flow sheet for urea granulation

YOUR BENEFITS

- The final product shows high sphericity and a very smooth surface thanks to the film sprayer. This results in less abrasion of product during further handling, such as transportation, storage and packing.
- Reduction of operating costs thanks to lower formaldehyde consumption
- Low dust formation in granulator for low dust entrainment to the exhaust air cleaning system
- Less product loss and low emission rates achievable in combination with highly efficient scrubbing systems
- Less downtime for maximum annual capacity thanks to long operating times without cleaning being required (max. running time achieved: 180 days)



Urea granulator for advanced fertilizers

ANDRITZ supplies mechanical and thermal solid/liquid separation systems such as

- Flotation units and thickeners
- Screens
- Vacuum belt filters
- Centrifuges
- Fluidized bed granulators
- Fluidized bed dryers/coolers

based on various fertilizer and agrochemicals technologies for the following specific applications:

- Urea
 - NPK
 - Potassium sulphate
 - Ammonium sulphate
 - Potassium chloride
 - Mono potassium phosphate
 - Potassium nitrate
 - Phosphates
- and many more.



Decanter centrifuge



Pusher centrifuge



Fluid bed dryer/cooler



WHAT'S YOUR SEPARATION CHALLENGE?

ANDRITZ Separation is the world's leading separation specialist with the broadest technology portfolio and more than 2,000 specialists in 40 countries. For more than 150 years, we have been a driving force in the evolution of separation solutions and services for industries ranging from environment to food, chemicals, and mining & minerals. As the OEM for many of the world's leading brands, we have the solutions and services to transform your business to meet tomorrow's changing demands – wherever you are and whatever your separation challenge. **Ask your separation specialist!**

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