

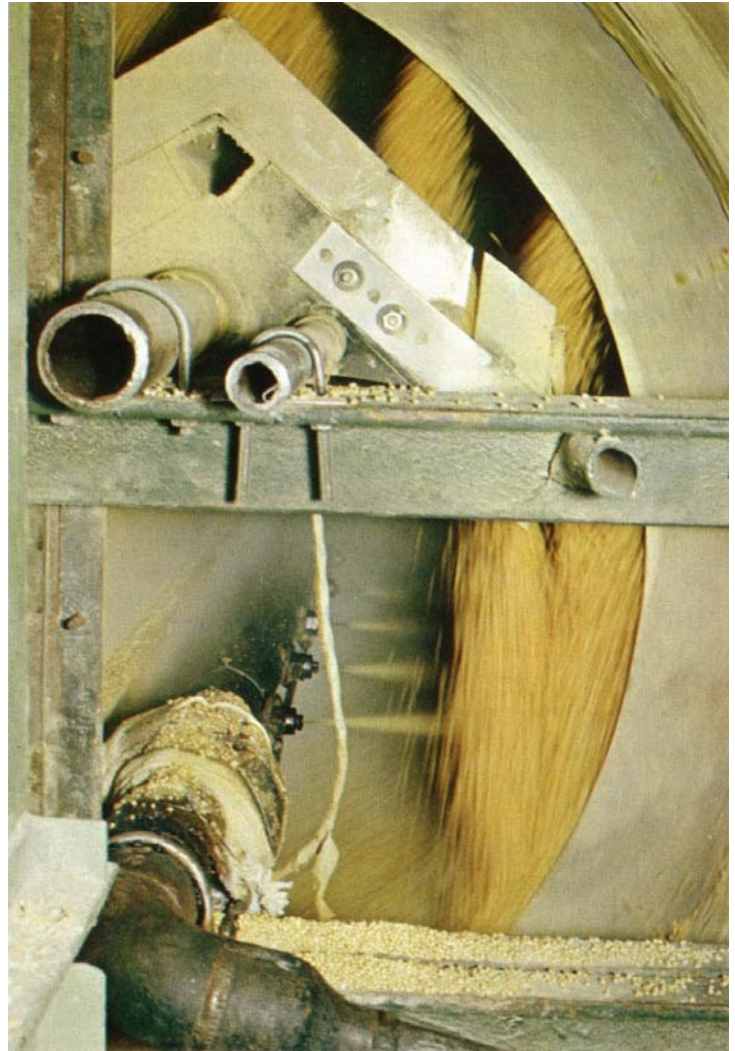
# Falling Curtain Granulation Process

## General Process Description

The Falling Curtain Process is an accretion type of granulation process. The process may be used to granulate a wide range of products such as a melt, strong solution, suspension, or slurry.

Particles build up to the desired size by the accretion of successive layers (coats) of "material" onto a seed particle. The process centers around the granulation drum. The Falling Curtain Process is proven to produce high quality granular and coated products.

Products processed include: pharmaceuticals, solid rocket fuel, fertilizers, sulfur, food products, and many more.



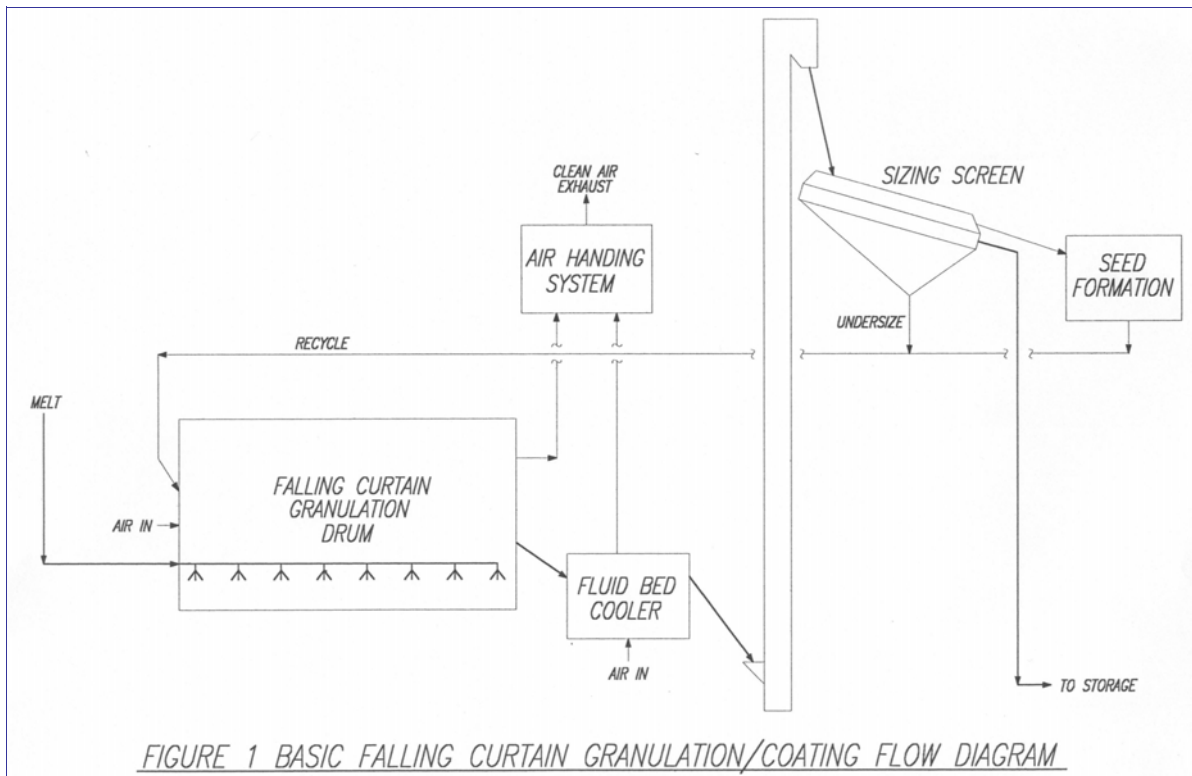
## Advantages

In many cases, the Falling Curtain Process offers outstanding physical property advantages over prilling, agglomeration granulation, flaking, pelletizing, and rotoforming. Every material will have specific characteristics. For example general characteristics for granular urea are:

- Crushing Strength (lb of force) 7.0—7.5
- Sphericity % 95
- Abrasion resistance 0.2
- Size range 1.0—30 mm
- Capacity up to 50 tph

## Expertise

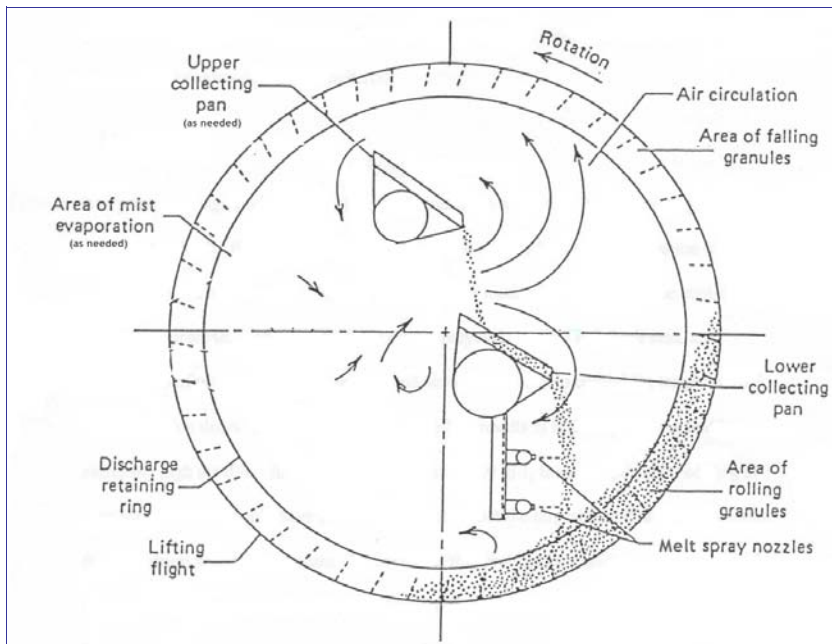
Since ACT provides expertise in the areas of prilling, granulation, and coating, you can count on ACT engineers to recommend the best process for your needs and prove this recommendation with small scale and pilot plant tests.



## Equipment

The flow diagram shown above indicates the major equipment items in the process. In addition to the granulation drum, the plant is composed of the following four systems:

- Melt System
- Dust Recovery and Scrubbing System
- Sizing and Seed Granulation System
- Coating System



### Applied Chemical Technology

4350 Helton Drive  
Florence, AL 35630

**Phone:** 256-760-9600

**Fax:** 256-760-9638

**Toll Free:** 1-800 ACT-3217

**Email:** [act@appliedchemical.com](mailto:act@appliedchemical.com)

**Web site:** <http://www.appliedchemical.com>

### Cross-Section of ACT Falling Curtain Granulator

From Kirk-Othmer: Encyclopedia of Chemical Technology, Urea Section