

## 640 STPD Ammonium Nitrate Plant for Sale

### **Capacity**

640 STPD

### **Product**

Ammonium Nitrate solution 83%  
Ammonium Nitrate prill

### **Process Technology**

Hercules Process

### **Major Equipment**

- Ammonia Compressors
- Neutralizer
- Neutralizer Ammonia Work Tank
- Neutralizer Condensate Tank
- Suction Accumulator
- Prill Tower
- Falling Film Evaporator
- Pre-drying Drum
- Rotary Dryer
- Oil Separator
- Ammonia Receiver
- Evaporator Air Heater
- Air Heaters
- Cooler Hydroclean Scrubber
- Dryer Feed Conveyor
- Pre-Dryer Feed Conveyor
- Blender
- Rotex Screen
- Oversize Scalping & Conveyor
- Air Dehumidifier Cooler

### **Plant Status**

Production stopped in 2015  
Currently installed, mothballed



### **BRIEF PROCESS DESCRIPTION**

Liquid ammonia feeds the ammonia tank where ammonia is flashed and preheated with ammonia vapors. The ammonia evaporation takes place in the air cooler and in exchanger fed with hot cooling water from condensers. Gaseous ammonia and liquid nitric acid are injected through spargers into the bottom part of the neutralizer tank. The neutralization is an exothermic reaction. Process steam obtained at neutralization reaction is scrubbed in before being condensed. The ammonium nitrate solution leaving the neutralizer is concentrated in a falling film evaporator operating under vacuum. Strength of the solution is adjustable. In the prilling process section, the AN solution first mixes with additives. The mixture then flows by gravity to the prilling nozzles. Nitrate droplets solidify while falling down and are collected on screening conveyor at the bottom of the prill tower. The prills are brought to the pre-drying drum, and then conveyed to the rotary dryer. Dryer screen installed after the rotary dryer is used to control the prill size. Preliminarily screened product goes to the final cooler drum fed with conditioned air. After a fine screening and coating process, the final product is sent to AN storage.

### **For more information contact -**

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