

**GODAVARI FERTILISERS AND CHEMICALS LIMITED
KAKINADA, ANDHRA PRADESH**

UNIT PROFILE

The Company was promoted as JV by Government of Andhra Pradesh and M/s. Indian Farmers Fertiliser Cooperative Limited (IFFCO), with a capital outlay of Rs.108 crores to produce 300,000 MT of Di-Ammonium Phosphate fertiliser. The Plant was expanded from time to time and the installed capacity has been revised to 10 lakhs MT per annum with capability to produce DAP and NPK grades.

Presently the Company is an Associate of M/s. Coromandel Fertilisers under Murugappa Group of Companies.

TECHNICAL FEATURES

GFCL was commissioned with two Trains(streams) for manufacturing DAP, based on conventionally proven granulation process. At present the plant consists of seven nos of PA tanks with a pipe line from Kakinada sea port for receiving and storing of 58000 MTs of Phosphoric acid and 3 nos of atmospheric storage tanks for receiving and storing 23,000 MTs of liquified Ammonia

The Plant was revamped in 1995 with "Incitec Pipe Reactor Technology" of Australia in Train-A and Plant capacity was revised to 4.725 Lakhs per annum of DAP.

During the year 2001 the Plant was retrofitted with "Incro Pipe Reactor Technology" in both the Trains and Plant capacity was revised to 8.32 Lakhs per annum. Additional storage facilities for Ammonia, Phosphoric Acid along with handling facilities commissioned. Additional bulk silo and bagging plant were also commissioned.

During the year 2006-07, both the trains were retrofitted with in-house modified Pipe reactors and the installed production capacity enhanced to 10 lakh MTs per annum.

MANUFACTURING PROCESS

The main raw materials used for manufacturing of DAP are Phosphoric Acid (54% P₂O₅, Ammonia, Urea, Sulphuric Acid and river sand as filler. During Production of NPK complex Fertilisers Muriate of Potash is used as additional raw material.

Ammonia will react with acids in the Pipe Reactor will produce Ammonium Phosphate/Sulphate, Slurries which are sprayed inside the granulator directly on the granulator solids bed, composed of all recycled product. At the bottom of solids bed liquid ammonia is directly fed through Ammoniation ploughshares system to reach the final N/P Mole ratio desired for the product. The granulator product is directly discharged by gravity to the dryer where its humidity will be adjusted. The product is then sieved to obtain the desired product size. The oversize will be crushed in crushers and recycled back to granulator. The fines also will be recycled back to the granulator. The on size product leaving the screens will be passed through the rotary cooler where the final temperature will be adjusted before being sent to storage. The Plant has a series of gas scrubbers connected to the different equipments to recover the nutrients as possible and to minimise the emissions of possible contaminants (Specially Ammonia, Fertiliser dust and fluorine) to the atmosphere.

The scrubbing liquid will be Phosphoric Acid and water depending on the scrubber and will be reused in the Plant. The final product will be reclaimed from silo or directly conveyed from Plant to the Bagging Plant through screens and will be bagged in 50 Kg HDPE bags for despatch.