

Ammonia Cracker

Cracked Ammonia finds wide application in steel industry for various heat treatment processes. We design, manufacture and supply customized ammonia cracker to meet customer's demand as per their requirements. Heat treatment results are found very sound in the presence of mixture of hydrogen and inert nitrogen.

Basic Description

Ammonia gas from cylinders passed over a bed of nickel catalyst at 850°C temperature and cracking take place in two different gas i.e. 75% Hydrogen and 25% Nitrogen.



Ammonia cracking is endothermic reaction and require heat from other source. The source is electrically heated/gas fired furnace (Rectangular Shape) and a retort made of heat resistance alloy is provided to hold the ammonia cracking catalyst.

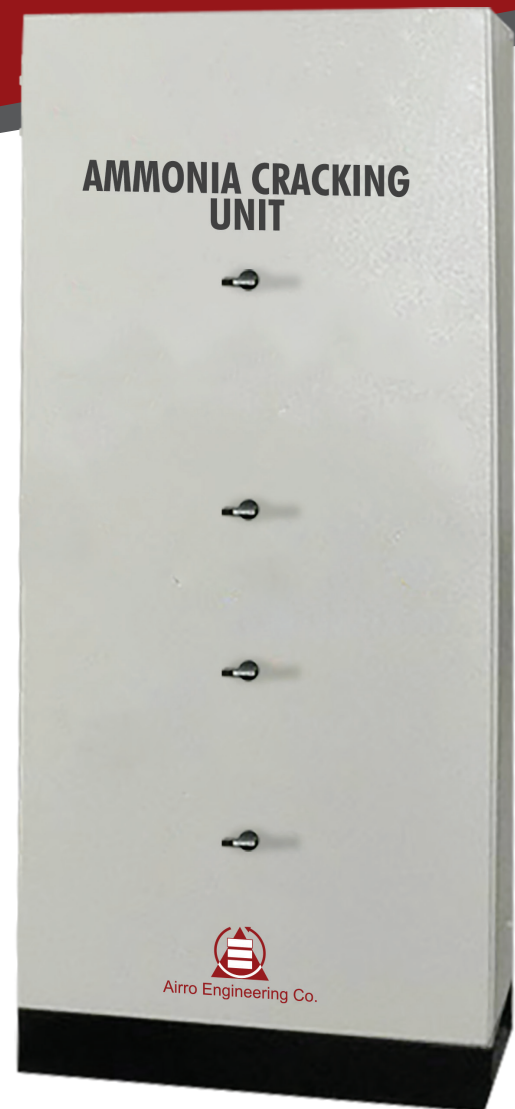
Cracked ammonia from furnace is cooled to ambient temperature in a Shell & Tube type heat exchanger and having dew point around (-) 30°C. Further product gas is passed through a molecular sieves filled Gas Purifier to achieve a dew point up to (-) 80°C.

Salient Features

- Centrifugally cast retort
- Furnace skin temperature is 20°C
- Dew Point up to (-) 80°C
- Heating Element is Ni-Cr (80-20%)
- Long service cycle, Negligible maintenance, High turn down ratio
- Heavy duty operations for years and years
- Fully automatic no need of operator

Applications

- Heat Treatment Furnace for bright annealing
- Brazing Industry
- For Gas Purification System
- Stainless Steel Industry
- Power Sector



PSA Hydrogen Gas Plant

We design, manufacture, erection and commissioning of PSA Hydrogen Gas Plant, Hydrogen Gas Generator. Hydrogen gas is obtained from Cracked Ammonia by removal of nitrogen gas present in the mixture of H₂ & N₂. Our Hydrogen Gas Generator is combination of ammonia cracker and purification unit. Ammonia is cracked in ammonia cracking system and is passed through a purification system to remove nitrogen gas and achieve better dew point. Now this pure Hydrogen gas can be stored in Hydrogen Storage Receiver. From storage tank hydrogen gas can be used to further application.



Salient Features

- Hydrogen Gas Purity- 99%
- Dew Point- (-) 70°C
- Skid Mounted Unit
- High Performance
- Automatic Operation

Applications

- Steel and Metal Industry
- Energy & Power Industry
- Automobile Industry
- For Welding purpose
- Pharmaceutical Industry



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