



## Large Scale Ammonia Cracker Design With Purifier Hydrogenation Facility 200Nm3/Hr

### Our Product Introduction

#### Basic Information

- Place of Origin: SUZHOU, CHINA
- Brand Name: SUMAIRUI GAS
- Certification: CE, ISO9001, SGS, TUV
- Model Number: OSA-50
- Minimum Order Quantity: 1 set
- Price: Negotiable
- Packaging Details: Exporting wooden case /Film packing
- Delivery Time: 30-45 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 100 sets/months



#### Product Specification

- Capacity: 100-400 Nm3/hr
- Material: Stainless Steel
- Reactor: Inconel 600
- Certificates: CE, ISO, ASME, GOST, KGS, NB Etc
- Color: Silver
- Application: Industrial
- Operation Mode: Fully Automatic
- Driving Type: Electrical
- Working Mode: Fully Automatic, 24 Hrs Non-stop
- Heating Time: 5-10min
- Noise Level: ≤50dB
- Product Name: Ammonia Cracker
- Safety Protection: Yes
- Temperature Range: 50-200°C
- Voltage: 220V

## Product Description

200Nm<sup>3</sup>/hr Ammonia Cracker with Purifier H<sub>2</sub> Generator from Ammonia decomposition for Reduction Furnaces

### 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.

#### **2NH<sub>3</sub>→N<sub>2</sub> + 3H<sub>2</sub> (IN PRESENCE OF NICKEL CATALYST AT 850°C)**

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

### APPLICATION

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

### Major applications of Ammonia Cracker Unit

- I On site Generation of cracked gas Ammonia
- I For Nitrogen Generation Plants
- I Pipe Manufacturing Industry
- I Sintered Brazing Industry
- I Galvanizing Plants
- I Automobile Industry
- I Heat Treatments





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