



SASPG

Product Profile **Cryogenic Air Separation Plant**

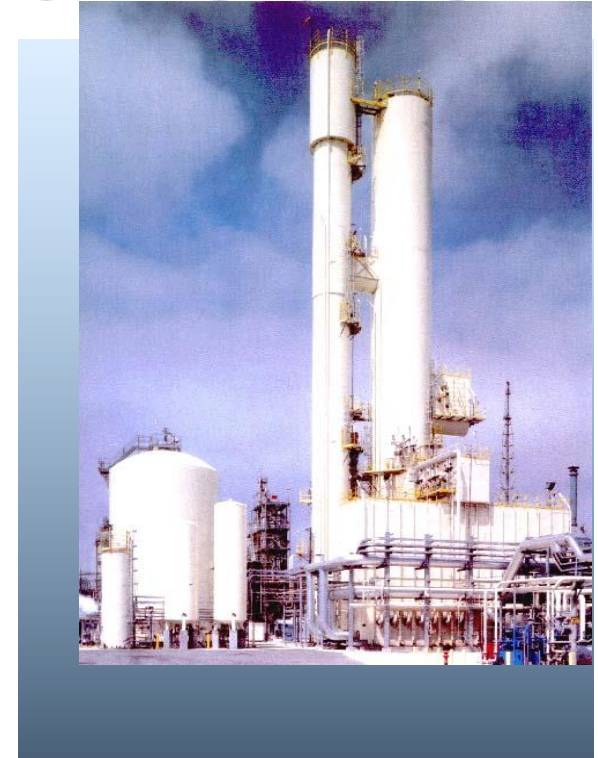
PRODUCTS

Air Separation Plant Capacity Range:

- 4L/h ~ 100,000Nm³/h O₂ ASP
- 10~1000T/D O₂ & N₂ Liquefaction Equipment
- Rare Gas Plant (Kr, Xe and etc.)

State-of-art Technology:

- Internal/External Compression
- Molecular Sieve Purification
- Turbo Expansion
- Structural Packing Rectification Column
- Argon Production Process without Hydrogen



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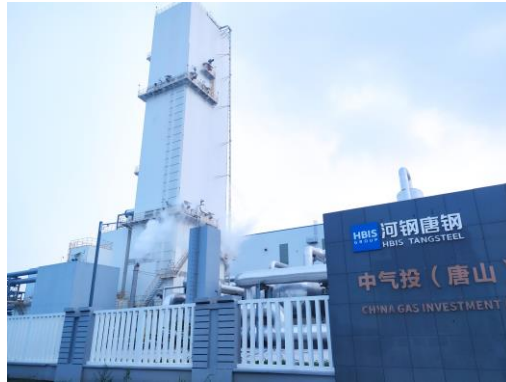
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60000 Nm3 ASP(HBIS)



63000Nm3 ASP (Baotailong)



42000 Nm3 ASP (Kardmir)





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2*55000Nm³, Xinjiang Qinhua Project



40000Nm³ ASP, Xinao, Inner Mongolia



2*23500Nm³, Tianjin Steel



39000Nm³ ASP, Jiangyinxingcheng Steel



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Product Profile – ASU Features

PRODUCTS

- ✓ State of the art technology
- ✓ Key Components such as air compressor, turbo expander and etc can adopt well-known international brand.
- ✓ Some parts prepackaged at factory to ensure the soonest delivery.
- ✓ Adjustable process design to meet customer's needs.
- ✓ Strict quality control system to ensure the project quality.
- ✓ Self-manufactured components and strict sub-supplier sourcing system saves budget for customer.
- ✓ [Refer to link for more information about SASPG ASU Technology.](#)



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PRODUCTS

Product Profile

Natural Gas (Associated Gas) Liquefaction and Separation Plants

SASPG's experience with natural gas (associated gas) liquefaction starts since early 1970s. We adopts both turbo expander process and throttling expansion process. Patent technology for helium recovery from LNG plant.

These plants have the following features:

- * Reasonable process design
- * Well-selected corollary equipment
- * High recovery rate of light hydrocarbons
- * Perfect safety and reliability
- * Easy operation and maintenance
- * Remarkable economical results



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Product Profile

Natural Gas (Associated Gas) Liquefaction and Separation Plants

Main Sizes:

50,000, 70,000, 100,000, 150,000, 200,000,
300,000, 500,000, 800,000, 1,000,000, 2,000,000
and 5,000,000 Nm³/d

SASPG's 500,000Nm³/d project won the
National Highest Quality Reward--Gold Medal

SASPG 2 million Nm³/day Plant in Erdos is the
largest LNG plant built by Chinese Supplier

Now SASPG has a capability to liquefy
12million Nm³ natural gas per day.



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1 million Nm³/day LNG Plant in Alashan



1 million Nm³/day LNG Plant in Zhangjiakou



600,000Nm³/day LNG Plant in Erdos



2 million Nm³/day LNG Plant in Erdos





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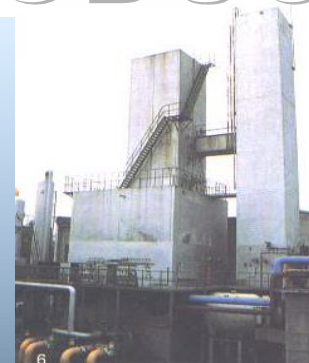
Product Profile

PSA (Pressure Swing Adsorption) Systems

SASPG is the pioneer of PSA technology application in China. Our contribution in the area has won various awards from China Commission of Science and Technology and other governmental authorities

What we supply

- 1. PSA O₂ system: 50~4000NM³/h with purity of 90~93% O₂;
- 2. PSA N₂ system: 20~1, 500NM³/h with a purity of 98~99.9995% N₂;
- 3. PSA CO₂ system: 2,000~30,000T/y with a purity meeting the requirement for foodstuff.
- 4. VPSA O₂ system



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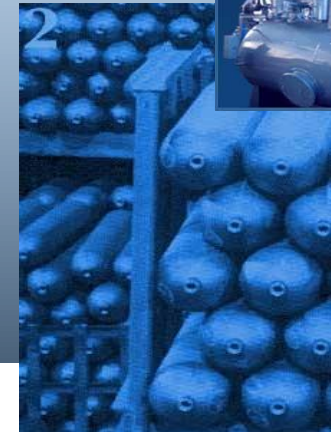
Product Profile

Dissolved Acetylene Plants

The oxyacetylene ($O_2-C_2H_2$) flame is an important heat source for welding, cutting and preheating. SASPG's dissolved acetylene plant ensures safe and economical operation for customers.

The plant efficiently generates acetylene gas by means of sufficient contact between calcium carbide and water. The generated acetylene gas is then purified, compressed and finally charged into steel cylinders which are filled with porous material and solvent (usually acetone). The dissolved acetylene will be released when it is used.

We also adopt the process with a medium-pressure gas pipeline in order to concentrate the acetylene supply to the user.



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Product Profile

Erection Services

We are specialized in installation, commissioning and maintenance for large and medium sized air separation plants, large sized cryogenic liquid cylindrical or spherical tanks, natural gas (associated gas) liquefaction and separation plants and cryogenic engineering equipment. Up to 2019, We have completed erection, commissioning or reconstruction for over 300 sets of ASUs in all over the world.



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Product Profile

Cryogenic Liquid tank and tankers

Vacuum insulated cryogenic liquid tanks

Vertical, horizontal or spherical type;

Double-wall structure with vacuum powder insulation;

Capacity : 1.2 m³~1000m³;

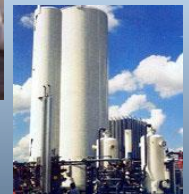
Gas Service: LOX, LIN or LAR.

In addition to standard products we can also design and produce specific tanks as per your specifications.



Cryogenic liquid semi trailer

Main Components: tank, chassis, operating cabinet, cryogenic liquid pump, booster and metallic hose.



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Product Profile

Cryogenic Liquid CO2 Tanks and Tankers

Advanced insulation method guarantees excellent insulation performance and high reliability.

Flat-bottom Cryogenic Liquid Tanks

Type: vertical, cylindrical and double-wall type with powder insulation.

The capacity Range: 200 -100,000m³;

Site Assembly Services.

Applications: industries such as chemical fiber production and metallurgy to store liquid O₂ or N₂ for peak shaving.



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Turbo-expander

- Over 30-years manufacturing history
- Leading China Manufacturer
- Advanced software & hardware facilities

Software NREC (Northern Research and Engineering Corporation)

5-axis milling machine (from USA)

3-coordinate measuring machine (from Italy)

Nastran software of CAE.

- Strict destructive test at the over speed testing machine
- Factory performance test for each expander

Applications: 50~50,000Nm³/h air separation plants ;
30,000~3,000,000m³/d natural gas processing plants.

Working Medium: air, nitrogen, natural gas, helium, nitrogen-hydrogen, etc.

Isoentropic efficiency: over 90%

Inlet pressure: up to 10 MPa.

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Plate-fin Heat Exchangers

Production capacity : 3000 ton/year.

In accordance with ASME;

National Awarded Products;

Widely applied in projects in China and overseas, exported to USA;

Manufacturing facilities :

Large-sized vacuum brazing furnace which can braze the cores with the maximum size 10,000x1250x1250 mm(LxWxH)

All necessary measuring and testing equipment from well-known international brand;

High-precision punching machines;

Advanced pickling equipment;

Miller, Lincoln and Esab welding machines,;

plate shearing machines and plate bending machines.



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