Laser Cutting Nitrogen Generator

Specialized for laser cutting

SUZHOU HAIYU SEPARATION TECHNOLOGY CO..LTD

Technology:Mr.Gong 18913543160
Business consulting:Mr.Lu 13962197222
Office Address:No. 98 Jujin Road, Taiping Street, Xiangcheng District, Suzhou City
Factory Address:No. 19 Xintai Road, Taiping Town, Xiangcheng District, Suzhou City
Telephone: 0512-69222390 Fax: 0512-69222391
E-mail:Hygas@vip.163.com
http:// www.haiyuqiti.com
http://www.haiyuhipure.com.cn

SUZHOU HAIYU SEPARATION TECHNOLOGY CO..LTD

About Us

23year+
Experience in gas separation industry

50person+
Professional and technical personnel

40+
Equipment export country

5000+
Accumulated equipment shipment quantity

Suzhou Haiyu Separation Technology Co., Ltd. is a leading high-tech company specializing in air separation solutions for nitrogen, oxygen, and supporting equipment. Building on the advanced research of the Chinese Academy of Sciences, we focus on cutting-edge gas separation and purification technologies to deliver innovative, energy-efficient, and reliable solutions for our customers.

Our product portfolio includes oxygen, nitrogen, and argon air separation systems (both gas and liquid), natural gas liquefaction plants, high-purity gas purification units, and tail gas recovery systems.

Haiyu products are trusted across a wide range of industries — from metallurgy, petrochemicals, and coal gasification to electronics, shipbuilding, pharmaceuticals, building materials, magnetic materials, textiles, and heat treatment. With a strong presence throughout China and exports to over 40 countries across the Americas, Europe, Asia, and Africa, we are proud to serve clients worldwide with safe, efficient, and intelligent solutions.

Cooperation partners

bodor laser · XTLASER · Yawei 亚威 · HGTECH · 大鹏激光 DA PENG LASER
川上 CHUANS · G·WEIKE · 大族激光 HAN'S LASER · HONGNIU 宏牛
SENFENG · CHERY · 时风集团 SHIFENG GROUP · 一汽-大众 · Narada 南都电源
ANSTEEL 攀钢集团有限公司 · 兖矿集团 YANCOAL GROUP · 中国有色集团 CNMC · 中色东方 CNMNC · CHALCO 中国铝业
ShaanGu · Sinopec · 3M · CSCEC 中建安装 · CTA
SLHP 三环机器 · 鲁西化工 LUXI CHEMICAL CORP. · hrafon 华曦超纤 · Goertek · 汇宇制药 HUIYU PHARMACEUTICAL

Laser Cutting Nitrogen Generator

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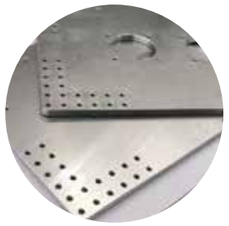
Our laser Cutting Nitrogen Generator features an advanced modular design, allowing the system to be flexibly expanded to meet your exact production needs. By simply adding standard nitrogen modules, different levels of nitrogen output can be achieved with ease. Compared with traditional twin-tower systems, it offers greater scalability and easier upgrades.

The equipment replaces conventional twin-tank pressure vessels with standardized, non-pressurized modules — ensuring higher safety, simpler maintenance, and an overall improved user experience. Its compact design saves significant space, adapts easily to standard facilities, and allows for convenient transport, relocation, and fast installation. This makes it an efficient nitrogen solution tailored for modern industrial environments.

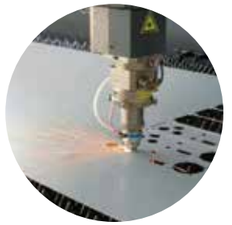
The laser Cutting Nitrogen Generator is especially well-suited for the laser cutting industry. When nitrogen is used as an assist gas, it creates a protective atmosphere around the molten metal, preventing oxidation and avoiding oxide layer formation — enabling truly oxidation-free cutting. With nitrogen purity ranging from 90% to 99.99%, it can meet the demands of cutting plates of varying thicknesses while ensuring sufficient gas flow.

90%
Carbon steel sheet

95%
Aluminum sheet



99.99%
Stainless sheet



Key Advantages of the Laser Cutting Nitrogen Generator

1. **Cost Efficiency**
   Significantly reduces nitrogen production costs.
2. **High Scalability**
   Easier to upgrade and expand compared with traditional twin-tower systems.
3. **Space-Saving Design**
   Compact footprint that fits seamlessly into standard facilities.
4. **Modular Flexibility**
   Expand on demand to meet different production requirements.
5. **Innovative Structure**
   Non-pressurized module design ensures greater safety and easier maintenance.
6. **Easy Installation**
   Flexible transport, quick setup, and adaptable to diverse industrial environments.

Laser Cutting Nitrogen Generator Selection Table

Model	Purity	Compatible Laser Cutting Machine Power	Pressure (MPa)	Compatible Cutting Materials	Air Compressor Model	Nitrogen Generator Power	Total System Power (with Air Compressor)
HY-JPN2020	90%-99.99%	3000W-6000W	1.0-1.4	Carbon Steel(3-6mm)	15KW	0.5KW	17KW
HY-JPN2040	90%-99.99%	6000W-10000W	1.0-1.4	Carbon Steel(6-12mm)	37KW	0.5KW	39KW
HY-JPN2080	90%-99.99%	10000W-30000W	1.0-1.4	Carbon Steel(10-30mm)	37KW	0.5KW	39KW
HY-JPN2120	90%-99.99%	40000W-60000W	1.0-1.4	Carbon Steel(35-50mm)	55KW	0.5KW	58KW
HY-JPN2160	90%-99.99%	60000W above	1.0-1.4	Carbon Steel(50mm以上)	75KW	0.5KW	78KW
HY-JMN1010	90%-95%	10000W-30000W	1.0-1.4	Carbon Steel(10-30mm)	37KW	0.5KW	39KW
HY-JMN1020	90%-95%	40000W-60000W	1.0-1.4	Carbon Steel(35-50mm)	55KW	0.5KW	58KW
HY-JPN2080	99.99%	1000W-3000W Nozzle Designed for Stainless Steel Cutting 2.0/2.5/3.0	1.0-1.4	Stainless Steel(1-3mm)	22KW	0.5KW	23.5KW
HY-JPN2160	99.99%	3000W/6000W/8000W Nozzle Designed for Stainless Steel Cutting 2.0/2.5/3.0	1.0-1.4	Stainless Steel(3-8mm)	37KW	0.5KW	39KW
HY-JPN2300	99.99%	8000W-12000W Nozzle Designed for Stainless Steel Cutting 2.0/2.5/3.0/5.0	1.0-1.4	Stainless Steel(8-15mm)	55KW	0.5KW	58KW
HY-JPN120-49Twin tower nitrogen generator and booster	99.99%	12000W-30000W	1.6-2.0	Stainless Steel(12-40mm)	75KW	0.5KW	93KW
HY-JPN150-49Twin tower nitrogen generator and booster	99.99%	40000W-60000W	1.6-2.0	Stainless Steel(30-60mm)	75KW	0.5KW	103KW
HY-JPN200-49Twin tower nitrogen generator and booster	99.99%	60000W above	1.6-2.0	Stainless Steel(60mm以上)	110KW	0.5KW	140KW

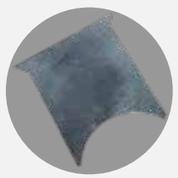
Sample cutting diagram

Gas source	Nitrogen	liquid nitrogen	Air compressor
Cutting effect image			

Carbon steel sheet

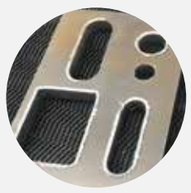
Air cutting

Nitrogen cutting

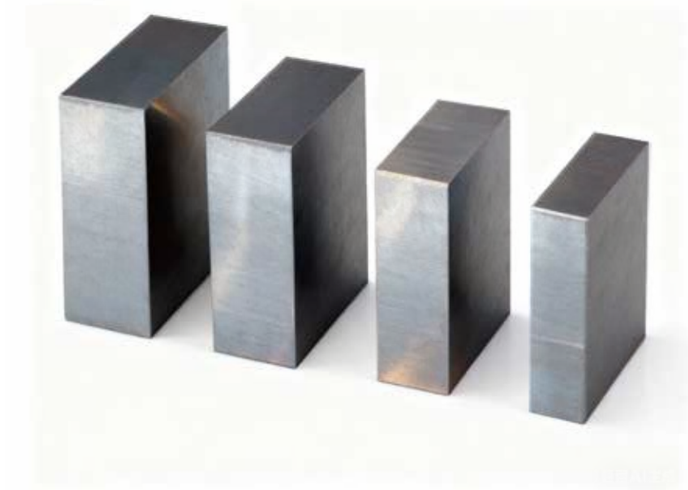


Stainless sheet

Air cutting



Nitrogen cutting



Carbon steel sheet

1000W–3000W
Nozzle Designed for Stainless Steel
Cutting 2.0/2.5/3.0

3000W–6000W
Nozzle Designed for Stainless Steel
Cutting 2.0/2.5/3.0

Stainless sheet

4000W–6000W–8000W
Nozzle Designed for Stainless Steel
Cutting 2.0/2.5/3.0