

GASET

蓋斯伊科技

Modular Nitrogen Generator



Working Principle

NPM series Modular gas generator adopt PSA (pressure swing adsorption) technology, using air as raw materials, quality selection of adsorbent, and under certain pressure, the adsorbent adsorption capacity of oxygen than nitrogen, through programmable program control pneumatic valve opening and closing to control the adsorber alternate cycle, pressure adsorption and vacuum stripping, complete separation of oxygen and nitrogen, get high purity nitrogen.

Product features

High reliability

- ◆ Mature technology
- ◆ High quality components
- ◆ Optimised design to ensure the excellent N2 quality.



Easy for operation

- ◆ Optimised structure, compact design
- ◆ Plug and play

Intelligent control

- ◆ Intelligent evacuation of unqualified nitrogen to realize unattended

Unique materials selection

- ◆ Adsorption canister uses aeronautics sophisticated aluminum profile, treated with anodic oxidation

Remote control

- ◆ Connectable cloud platform
- ◆ Realize mobile phone online control and monitoring

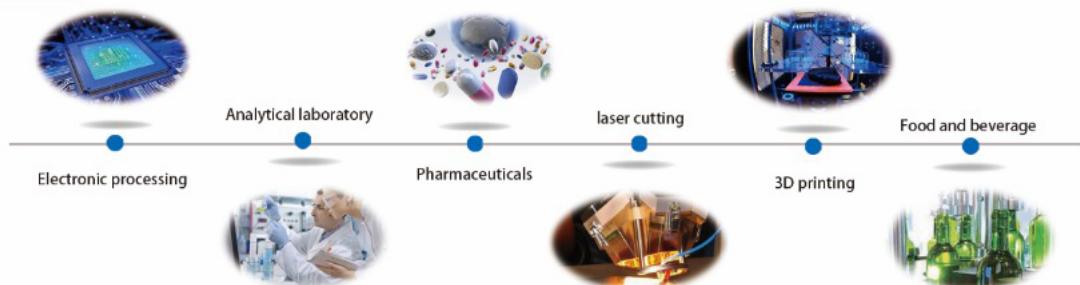
Product Specification

Model	Nitrogen content (Nm ³ /h)							Air interface	Nitrogen interface	Dimensions (mm)			Weight (kg)	Matching gas tank	gas tank size
	99%	99.5%	99.9%	99.95%	99.99%	99.995%	99.999%			L	W	H			
NPM01P	4.3	3.6	2.9	2.4	1.8	1.5	1.1	Φ8	Φ8	570	495	1020	110	built-in	/
NPM02	8.1	6.8	5.4	4.5	3.5	2.8	2.0	G1/2	G1/2	570	470	1690	146	50L	Φ320*770
NPM04	16.2	13.5	10.8	8.9	7.0	5.7	4.3	G1/2	G1/2	735	470	1690	213	50L	Φ320*770
NPM06	24.3	20.3	16.2	13.4	10.5	8.8	7.1	G1/2	G1/2	900	470	1690	280	100L	Φ350*1327
NPM08	32.4	27.0	21.6	17.7	13.8	11.7	9.6	G1/2	G1/2	1060	470	1690	347	100L	Φ350*1327
NPM10	40.5	33.8	27.0	22.1	17.2	14.6	12.0	G3/4	G1/2	1270	470	1690	418	200L	Φ450*1480
NPM12	48.6	40.5	32.4	27.0	21.6	18.5	15.3	G3/4	G1/2	1440	470	1690	490	200L	Φ450*1480
NPM14	56.7	47.3	37.8	31.5	25.2	21.5	17.8	G3/4	G1/2	1600	470	1690	555	200L	Φ450*1480
NPM16	64.8	54.0	43.2	36.0	28.8	24.6	20.4	G1	G1/2	1760	470	1690	621	200L	Φ450*1480
NPM18	72.9	60.8	48.6	40.5	32.4	27.7	22.9	G1	G1/2	1930	470	1690	688	300L	Φ550*1560
NPM20	81.0	67.5	54.0	45.0	36.0	30.8	25.5	G1	G1/2	2090	470	1690	753	300L	Φ550*1560
NPM20+	94.5	78.8	63.0	52.5	42.0	35.9	29.7	G1-1/4	G1/2	2140	470	1840	835	300L	Φ550*1560
NPM24	97.2	81.0	64.8	54.0	43.2	36.9	31.5	G1-1/4	G1/2	1590	660	1700	948	300L	Φ550*1560
NPM28	113.4	94.5	75.6	63.0	50.4	43.0	35.6	G1-1/4	G1/2	1800	660	1700	1083	500L	Φ600*2180
NPM32	129.6	108.0	86.4	72.0	57.6	49.2	40.8	G1-1/2	G1/2	1960	660	1700	1219	500L	Φ600*2180
NPM36	145.8	121.5	97.2	81.0	64.8	55.3	45.8	G1-1/2	G3/4	2130	660	1700	1355	500L	Φ600*2180
NPM40	162.0	135.0	108.0	90.0	72.0	61.5	51.0	G1-1/2	G3/4	2290	660	1700	1490	500L	Φ600*2180

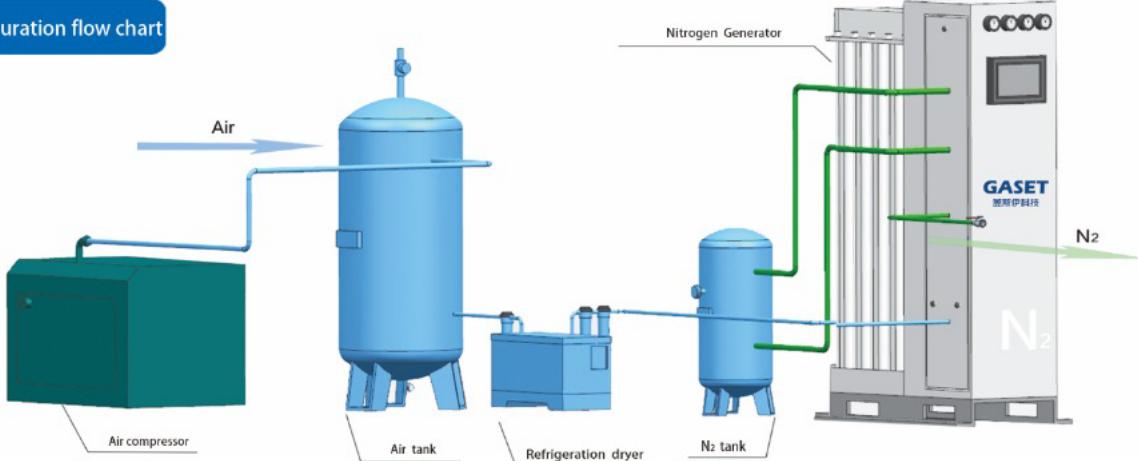
※ Remarks: 1) The above data are measured when the adsorption pressure is 0.7MPa

2) Conversion should be carried out when the adsorption pressure is lower than 0.7MPa

Industry applications



General configuration flow chart





Module Oxygen Generator



Working Principle

OPM series Modular oxygen generator adopt PSA (pressure swing adsorption) technology, using air as raw materials, quality selection of adsorbent, and under certain pressure, the adsorption capacity of adsorbents for oxygen and nitrogen is different, through programmable program control pneumatic valve opening and closing to control the adsorber alternate cycle, pressure adsorption and vacuum stripping, complete separation of oxygen and nitrogen, get high purity oxygen.

Product features

High reliability

- ◆ Mature technology
- ◆ High quality components
- ◆ Optimised design to ensure the excellent O₂ quality.

Remote control

- ◆ Connectable cloud platform
- Realize mobile phone online control and monitoring



Easy for operation

- ◆ Optimised structure, compact design
- ◆ Plug and play

Intelligent control

- ◆ Intelligent evacuation of unqualified oxygen to realize unattended

Unique materials selection

- ◆ Adsorption canister uses aeronautics sophisticated aluminum profile, treated with anodic oxidation

Product Specification

Type	Oxygen flow(Nm ³ /h)		Air interface	Nitrogen interface	Overall dimensions(mm)			Weight(kg)	Matching gas tank	Tank size
	90%	93%			L	W	H			
OPM01P	0.9	0.7	Φ8	Φ8	570	495	1020	110	built-in	/
OPM02	1.7	1.4	G1/2	G1/2	570	470	1690	146	50L	Φ320*770
OPM04	3.3	2.7	G1/2	G1/2	735	470	1690	213	50L	Φ320*770
OPM06	5.0	4.1	G1/2	G1/2	900	470	1690	280	100L	Φ350*1327
OPM08	6.6	5.4	G1/2	G1/2	1060	470	1690	347	100L	Φ350*1327
OPM10	8.3	6.8	G3/4	G1/2	1270	470	1690	418	200L	Φ450*1480
OPM12	9.9	8.1	G3/4	G1/2	1440	470	1690	490	200L	Φ450*1480
OPM14	11.6	9.5	G3/4	G1/2	1600	470	1690	555	200L	Φ450*1480
OPM16	13.2	10.8	G1	G1/2	1760	470	1690	621	200L	Φ450*1480
OPM18	14.9	12.2	G1	G1/2	1930	470	1690	688	300L	Φ550*1560
OPM20	16.5	13.5	G1	G1/2	2090	470	1690	753	300L	Φ550*1560
OPM20+	19.3	15.8	G1-1/4	G1/2	2140	470	1840	835	300L	Φ550*1560
OPM24	19.8	16.2	G1-1/4	G1/2	1590	660	1700	948	300L	Φ550*1560
OPM28	23.1	18.9	G1-1/4	G1/2	1800	660	1700	1083	500L	Φ600*2180
OPM32	26.4	21.6	G1-1/2	G1/2	1960	660	1700	1219	500L	Φ600*2180
OPM36	29.7	24.3	G1-1/2	G1/2	2130	660	1700	1355	500L	Φ600*2180
OPM40	33.0	27.0	G1-1/2	G1/2	2290	660	1700	1490	500L	Φ600*2180

※ Remarks: 1) The above data are measured when the adsorption pressure is 0.6MPa
 2) Compressed air meets ISO8573-2010 1.2.1 standard

Industry applications

Medical institution

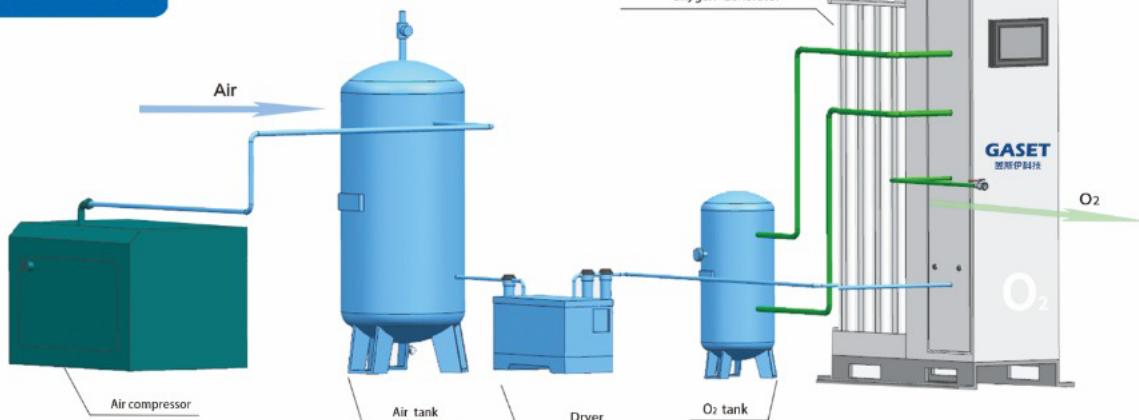
Matching ozone generator

Industrial combustion supporting

Pharmaceuticals

Aquaculture

General configuration flow chart



盖斯伊科技(苏州)有限公司
GSE Tech (Suzhou) Co.,Ltd.

公司地址：苏州高新区横山路98号新技术产业园8幢
Add: Building 8, No.98 Hengshan Road, SND,Suzhou
Tel: +86-512-65111668 Fax: +86-512-68086515
E-mail: sales1@gsetech.cn Web:www.gsetech.cn





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盖斯伊

双塔式PSA制氧机

Double tower PSA Oxygen Generator



工作原理

Working Principle

OP系列变压吸附制氧机采用先进的变压吸附技术，以空气为原料，选用优质沸石分子筛为吸附剂，基于沸石分子筛对氧和氮的吸附速率不同，并在一定的压力下，碳分子筛对氧的吸附能力远大于氮，通过可编程程序控制气动阀的启闭，加压吸附、减压脱附，完成氧氮分离，得到所需纯度的氧气。由于吸附剂有一定的吸附容量，当吸附饱和时就需要再生，所以单吸附塔的吸附是间歇式的，为保证连续供气，采用双吸附塔并联交替吸附，一塔工作一塔再生，连续产生氧气。

Pressure swing adsorption technology is applied on the O₂ generator. We utilise the air as raw material, and adopt the high quality adsorbent for N₂ generator. Under certain pressure, the adsorption ability of the adsorbent to adsorb O₂ is much higher than that of N₂. The pneumatic valves are controlled by PLC, to control the working mode of the two adsorption tanks: adsorption starts while pressure increasing, regeneration starts while pressure decreasing. In this case, the O₂ and N₂ are separated from the compressed air, the required purified O₂ is obtained.

产品特点

Product features

高度可靠性 High reliability

- ◆ 久经考验的技术 Mature technology
- ◆ 高品质的元器件 High quality components
- ◆ 优化设计，确保卓越的氧气品质 Optimised design to ensure the excellent O₂ quality.

安全性能高 Unique materials selection

- ◆ 相比液氧系统，压力低，且无危化品存储风险 Compared with the liquid oxygen system, the pressure is lower and there is no risk of hazardous chemicals storage

五大
特点

快捷便利 Easy for operation

- ◆ 优化结构，紧凑的设计 Optimised structure, compact design
- ◆ 方便连接已有压缩空气 Easy for the connection of compressed air
- ◆ 即插即用 Plug and play

智能化控制 Intelligent control

- ◆ 不合格氧气智能排空，实现无人值守； Intelligent evacuation of unqualified oxygen to realize unattended
- ◆ 电子系统自动化操作管理 Electronic system automation operation management

节约成本 Cost saving

- ◆ 运行成本低 Low operation cost
- ◆ 7x24h不间断供应 7x24h continuously running

产品规格表

Product Specification

型号	氧气产量 (Nm ³ /h)		空气接口	氧气接口	外形尺寸 (mm)			重量(kg)	储罐容积
	90%	93%			长	宽	高		
OP20	27.5	22.5	DN40	DN15	1700	1200	2100	2000	0.6m ³
OP30	37.4	30.6	DN50	DN15	1850	1250	2300	2600	0.6m ³
OP40	46.8	38.3	DN50	DN20	1950	1350	2500	3200	1.0m ³
OP50	55.0	45.0	DN50	DN20	2100	1400	2500	3800	1.0m ³
OP60	70.4	57.6	DN65	DN20	2250	1500	2800	4600	1.5m ³
OP70	83.1	67.9	DN65	DN25	2450	1650	2900	5200	1.5m ³
OP80	93.5	76.5	DN80	DN25	2500	1700	3400	6000	1.5m ³
OP100	113.8	93.1	DN80	DN25	2650	1750	3700	6300	2.0m ³
OP120	139.1	113.8	DN100	DN32	2750	1800	3900	7000	2.0m ³
OP150	160.6	131.4	DN100	DN32	3100	2000	3700	7500	2.5m ³
OP180	183.7	150.3	DN100	DN32	3150	2100	3800	8000	3.0m ³
OP200	229.2	187.6	DN125	DN40	3300	2300	4000	9350	3.0m ³

※1) 以上数据是吸附压力为0.7MPa时测得;

The above data is measured when the adsorption pressure is 0.7MPa;

※2) 吸附压力低于0.7MPa时要进行折算。

Conversion is required when the adsorption pressure is lower than 0.7MPa.

规格参数

Specification Parameters

入口参数 Entry parameters

进气质量
Compressed air quality符合 ISO 8573-1:2010 2.2.2要求
Comply to ISO 8573-1:2010 2.2.2standard进气压力
Compressed air pressure

0.7~1.0MPa

电气参数 Electricity parameters

电制
Power supply 220V/50Hz功率
Power 350w行业应用
Industry Application医疗机构
Medical institution配套臭氧发生器
Matching ozone generator工业助燃
Industrial combustion supporting生物制药
Pharmaceuticals养殖业
Aquaculture盖斯伊科技(苏州)有限公司
GSE Tech (Suzhou) Co.,Ltd.公司地址：苏州高新区横山路98号新技术产业园8幢
Add: Building 8, No.98 Hengshan Road, SND,Suzhou
Tel: +86-512-65111668 Fax: +86-512-68086515
E-mail: sales1@gsetech.cn Web:www.gsetech.cn

GASET 公众号



GASET 小程序



蓋斯伊

双塔式PSA制氮机

Double tower PSA Nitrogen Generator



Working Principle

Pressure swing adsorption technology is applied on the N2 generator. We utilise the air as raw material, and adopt the high quality adsorbent for N2 generator. Under certain pressure, the adsorption ability of the adsorbent to adsorb O2 is much higher than that of N2. The pneumatic valves are controlled by PLC, to control the working mode of the two adsorption tanks: adsorption starts while pressure increasing, regeneration starts while pressure decreasing. In this case, the O2 and N2 are separated from the compressed air, the required purified N2 is obtained.

Product features

High reliability

- ◆ Mature technology
- ◆ High quality components
- ◆ Optimised design to ensure the excellent N2 quality.

Unique materials selection

- ◆ Compared with the liquid nitrogen system, the pressure is lower and there is no risk of hazardous chemicals storage



Easy for operation

- ◆ Optimised structure, compact design
- ◆ Easy for the connection of compressed air
- ◆ Plug and play

Intelligent control

- ◆ Intelligent evacuation of unqualified nitrogen to realize unattended
- ◆ Electronic system automation operation management

Cost saving

- ◆ Low operation cost
- ◆ 7x24h continuously running

Product Specification

Model	Nitrogen production (Mm ³ /h)				Air interface	Nitrogen interface	Overall dimensions (mm)			Weight (kg)	Matching gas tank
	99%	99.9%	99.99%	99.999%			L	W	H		
NP60	110	90.0	60.0	45.0	DN40	DN20	1700	1200	2100	2000	0.6m ³
NP80	145	120.0	80.0	60.0	DN50	DN20	1850	1250	2300	2600	0.6m ³
NP100	180	150.0	100.0	75.0	DN50	DN25	1950	1350	2500	3200	1.0m ³
NP120	220	180.0	120.0	90.0	DN50	DN25	2100	1400	2500	3800	1.0m ³
NP150	275	225.0	150.0	112.5	DN65	DN32	2250	1500	2800	4600	1.5m ³
NP180	330	270.0	180.0	135.0	DN65	DN32	2450	1650	2900	5200	1.5m ³
NP200	365	300.0	200.0	150.0	DN80	DN32	2500	1700	3400	6000	1.5m ³
NP250	460	375.0	250.0	187.5	DN80	DN32	2650	1750	3700	6300	2.0m ³
NP300	550	450.0	300.0	225.0	DN100	DN40	2750	1800	3900	7000	2.0m ³
NP350	640	525.0	350.0	262.5	DN100	DN40	3100	2000	3700	7500	2.5m ³
NP400	730	600.0	400.0	300.0	DN100	DN50	3150	2100	3800	8000	3.0m ³
NP500	910.0	750.0	500.0	385.0	DN125	DN50	3000	2300	4000	9350	3.0m ³

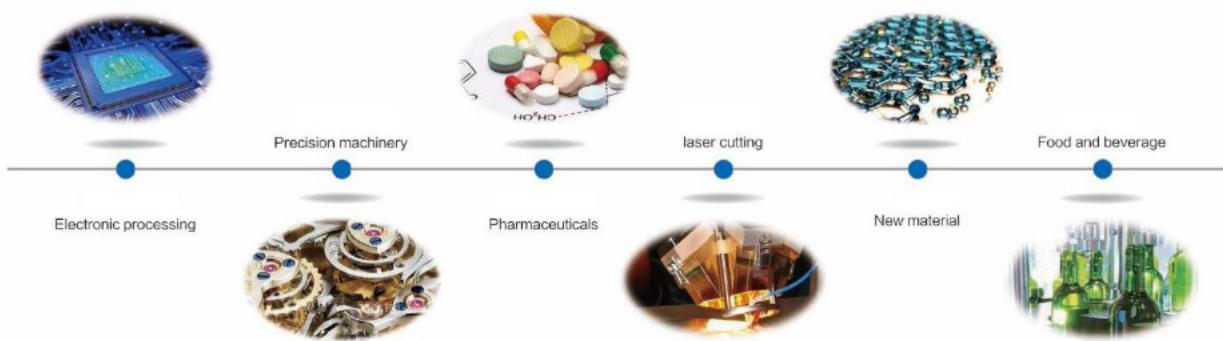
※1) The above data is measured when the adsorption pressure is 0.7MPa

※2) Conversion is required when the adsorption pressure is lower than 0.7MPa

Specification Parameters

Entry parameters		Electricity parameters	
Compressed air quality	Comply to ISO 8573-1:2010 2.2.2standard	Power supply	220V/50Hz
Compressed air pressure	0.7~1.0MPa	Power	350w

Industry Application



盖斯伊科技（苏州）有限公司
GSE Tech (Suzhou) Co.,Ltd.

公司地址：苏州高新区横山路98号新技术产业园8幢
Add: Building 8, No.98 Hengshan Road, SND,Suzhou
Tel: +86-512-65111668 Fax: +86-512-68086515
E-mail: sales1@gsetech.cn Web:www.gsetech.cn



GASET 公众号



GASET 小程序

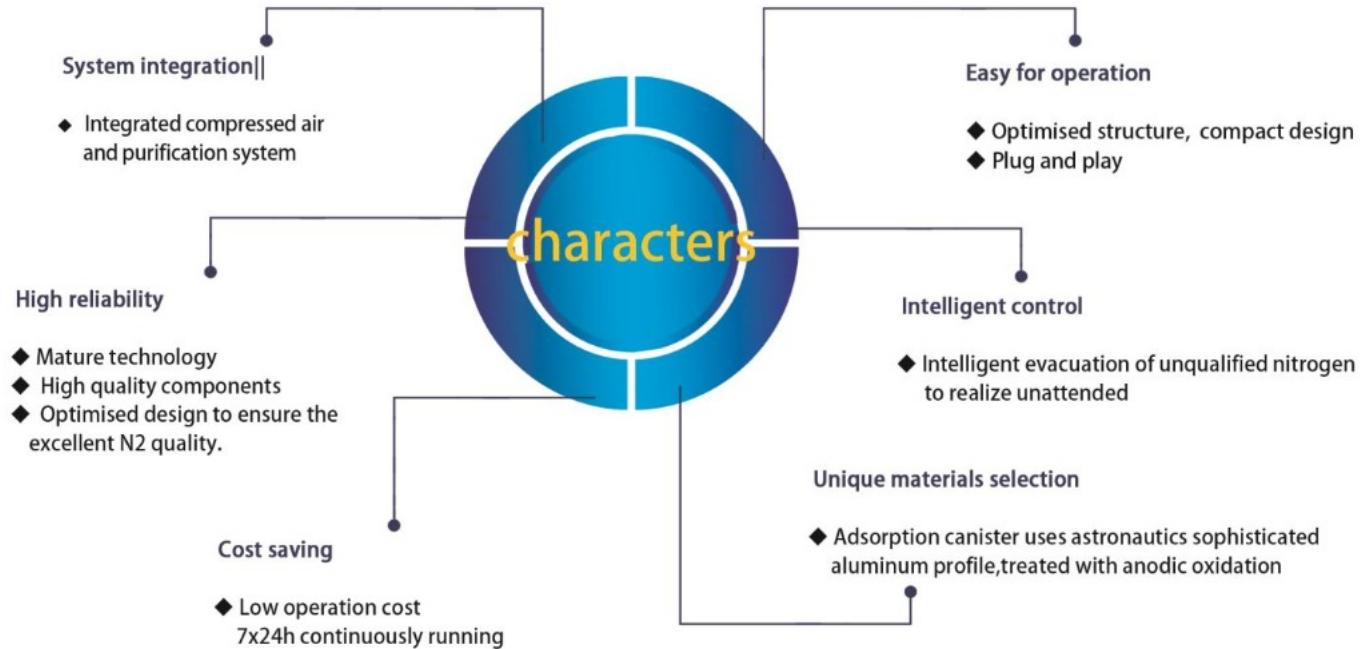
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一体式 Integrated 氮气发生器 Nitrogen Generator



Product features



Product Specification

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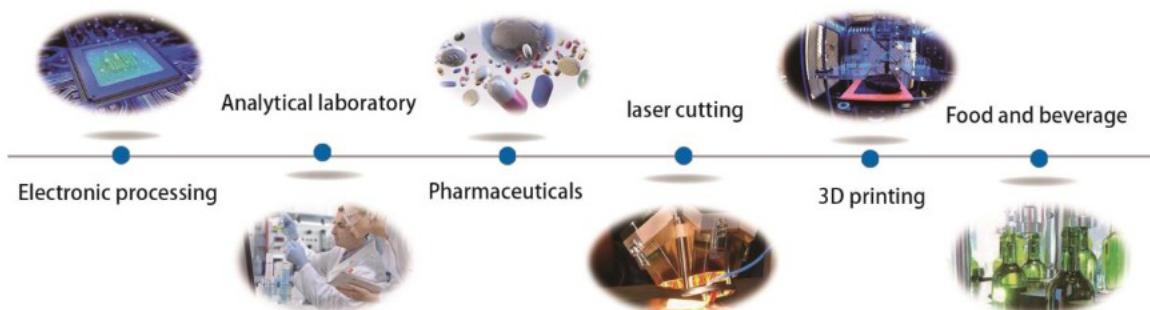
Model	Nitrogen purity	Nitrogen production	Dimensions	Nitrogen pressure	Nitrogen connection	Weight
NMI-01	99. 9%	3. 7L/min	800*700*780 (L*W*H)	0. 6MPa	φ 8	90KG
	99%	10L/min				
	97%	18L/min				
NMI-02	99. 9%	7. 4L/min	800*700*780 (L*W*H)	0. 6MPa	φ 8	120KG
	99%	20L/min				
	97%	36L/min				
NPI-01	99. 9%	48L/min	1200*850*1230 (L*W*H)	0. 6MPa	φ 8	260KG
	99. 99%	30L/min				
	99. 999%	18L/min				
NPI-02	99. 9%	80L/min	1100*850*1700 (L*W*H)	0. 6MPa	φ 8	350KG
	99. 99%	50L/min				
	99. 999%	30L/min				

※ P. S.

1) Power supply: 380V/50Hz, Power: 1~3.7KW;

2) Reference condition: ambient temperature 20 °C, adsorption pressure 0.7MPa, air quality in accordance with ISO 8573-1:2010 2.2.2.

Industry applications



Nitrogen outlet

Use equipment

盖斯伊科技（苏州）有限公司
GSE Tech (Suzhou) Co.,Ltd.

公司地址：苏州高新区横山路98号新技术产业园8幢
Add: Building 8, No.98 Hengshan Road, SND,Suzhou
Tel: +86-512-65111668 Fax: +86-512-68086515
E-mail: sales1@gsetech.cn Web:www.gsetech.cn



GASET 公众号

GASET

盖斯伊科技（苏州）有限公司

G S E T e c h (S u z h o u) C o . , L t d .

一、 Company site display



二、 Certificate



三、 Integrated nitrogen/oxygen generator



Oxygen outlet

Use equipment

Product Specification

GASET
盖斯伊科技

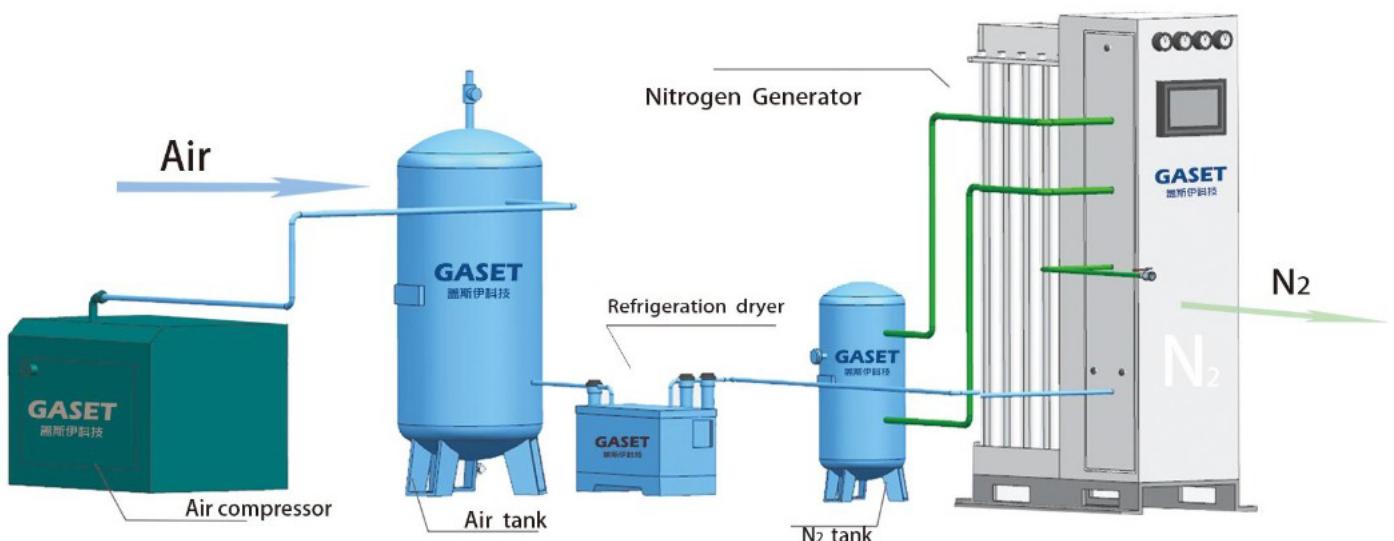
Model	Nitrogen purity	Nitrogen production	Dimensions	Nitrogen pressure	Nitrogen connection	Weight
NMI-01	99. 9%	3. 7L/min	800*700*780 (L*W*H)	0. 6MPa	Φ 8	90KG
	99%	10L/min				
	97%	18L/min				
NMI-02	99. 9%	7. 4L/min	800*700*780 (L*W*H)	0. 6MPa	Φ 8	120KG
	99%	20L/min				
	97%	36L/min				
NPI-01	99. 9%	48L/min	1200*850*1230 (L*W*H)	0. 6MPa	Φ 8	260KG
	99. 99%	30L/min				
	99. 999%	18L/min				
NPI-02	99. 9%	80L/min	1100*850*1700 (L*W*H)	0. 6MPa	Φ 8	350KG
	99. 99%	50L/min				
	99. 999%	30L/min				

※ P. S.

1) Power supply: 380V/50Hz, Power: 1~3.7KW;

2) Reference condition: ambient temperature 20 °C, adsorption pressure 0.7MPa, air quality in accordance with ISO 8573-1:2010 2. 2. 2.

四、 Modular nitrogen/oxygen generator



五、 Flow scale nitrogen/oxygen generator





Container type installation-free, easy to move, can be used directly after plugging in

Product Specification

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Type	Nitrogen flow (Nm³/h)				Air interface	N ₂ interface	Overall dimensions (mm)			Weight (Kg)	Tank size
	99%	99.9%	99.99%	99.999%			Length	Width	Height		
NP60	110	90.0	60.0	45.0	DN40	DN20	1700	1200	2100	2000	0.6m ³
NP80	145	120.0	80.0	60.0	DN50	DN20	1850	1250	2300	2600	0.6m ³
NP100	180	150.0	100.0	75.0	DN50	DN25	1950	1350	2500	3200	1.0m ³
NP120	220	180.0	120.0	90.0	DN50	DN25	2100	1400	2500	3800	1.0m ³
NP150	275	225.0	150.0	112.5	DN65	DN32	2250	1500	2800	4600	1.5m ³
NP180	330	270.0	180.0	135.0	DN65	DN32	2450	1650	2900	5200	1.5m ³
NP200	365	300.0	200.0	150.0	DN80	DN32	2500	1700	3400	6000	1.5m ³
NP250	460	375.0	250.0	187.5	DN80	DN32	2650	1750	3700	6300	2.0m ³
NP300	550	450.0	300.0	225.0	DN100	DN40	2750	1800	3900	7000	2.0m ³
NP350	640	525.0	350.0	262.5	DN100	DN40	3100	2000	3700	7500	2.5m ³
NP400	730	600.0	400.0	300.0	DN100	DN50	3150	2100	3800	8000	3.0m ³
NP500	910.0	750.0	500.0	385.0	DN125	DN50	3000	2300	4000	9350	3.0m ³

P. S. 1) The above data is measured when the adsorption pressure is 0.7Mpa.

2) Compressed air meets standard ISO 8573-2010 1.2.1.

Type	Oxygen production (Nm³/h)		air interface	oxygen interface	dimension (mm)			weight(kg)	tank
	90%	93.00%			long	width	high		
OP 60	27.5	22.5	DN40	DN15	1700	1200	2100	2000	0.6m ³
OP80	37.4	30.6	DN50	DN15	1850	1250	2300	2600	0.6m ³
OP100	46.8	38.3	DN50	DN20	1950	1350	2500	3200	1.0m ³
OP120	55.0	45.0	DN50	DN20	2100	1400	2500	3800	1.0m ³
OP150	70.4	57.6	DN65	DN20	2250	1500	2800	4600	1.5m ³
OP180	83.1	67.9	DN65	DN25	2450	1650	2900	5200	1.5m ³
OP200	93.5	76.5	DN80	DN25	2500	1700	3400	6000	1.5m ³
OP250	113.8	93.1	DN80	DN25	2650	1750	3700	6300	2.0m ³
OP300	139.1	113.8	DN100	DN32	2750	1800	3900	7000	2.0m ³
OP350	160.6	131.4	DN100	DN32	3100	2000	3700	7500	2.5m ³
OP400	183.7	150.3	DN100	DN32	3150	2100	3800	8000	3.0m ³
OP500	229.2	187.6	DN125	DN40	3300	2300	4000	9350	3.0m ³

P. S. : 1) The above data is measured at 0.6mpa