

# 激光切割-氮气方案

—  
LASER CUTTING  
NITROGEN SOLUTION

**OPPAIR**  
君威诺

君威诺空压机（上海）有限公司  
SHANDONG OPPAIR MACHINERY MANUFACTURING CO.,LTD



手持激光焊  
专用小型高纯度制氮机

# HAND LASER WELDING

## MODEL 1 SPECIAL SMALL HIGH-PURITY NITROGEN GENERATOR



### AIR COMPRESSOR 空压机

**4/5.5/11KW**  
**8bar**

永磁变频螺杆空压机, 节能高效  
Permanent magnet variable frequency  
screw air compressor, energy efficient

### NITROGEN GENERATOR 制氮机

**2/5/10<sup>3</sup>**

制氮机, 99.99%纯度, 焊接专用  
Nitrogen machine, 99.99% purity, special for  
welding

### AIR TANK 储气罐

**300L**

配备300L储气罐, 压力更稳定  
Equipped with 300L air tank, the pressure is  
more stable

### 配置方案 CONFIGURATION SCHEME



MODEL 1-NITROGEN GENERATOR  
型号 1-制氮机



HANDHELD LASER WELDING\*4  
手持激光焊\*4

### APPLY应用

Model 型号	N2-2	N2-5	N2-10
氮气流量 Nitrogen flow	2 Nm <sup>2</sup> /h	5 Nm <sup>3</sup> /h	10 Nm <sup>3</sup> /h
配套方案 Supporting plan	2-4台手持焊/3台自动焊 With 2-4 handheld welding machines or 3 automatic welding machines	6-10台手持焊/4-6台自动焊 With 6-10 handheld welding machines or 4-6 automatic welding machines	10-18台手持焊/8-10台自动焊 With 10-18 handheld welding machines or 8- 10 automatic welding machines
焊机 Welder			

型号	N2-2	N2-5	N2-10	
空压机	空压机型号	OPR-5PV	OPR-7.5PV	OPR-15PV
	功率/马力 kw/hp	4 / 5	5.5 / 7.5	11/15
	电压 V/HZ	380V/400V/415V 50HZ 3P, 220V/440V 60HZ 3P, 220V 50/60HZ 1P		
	类型	变频		
	介质	空气		
	储气罐 L	270L		
	冷却方式	风冷		
	工作压力 bar	8		
	供气量 m <sup>3</sup> /min	0.63	0.95	1.5
尺寸 (mm)	1400*650*1200		1650*680*1380	
重量(kg)	250		355	
制氮机	纯度 %	99.99%		
	产氮量 Nm <sup>3</sup> /h	2	5	10
	压力	0-6bar		
	电压 V/HZ	220V 50/60HZ 1P		
	出气口尺寸*数量	DN15 *1		
	功率 KW	0.1		
	耗气量 m <sup>3</sup> /min	0.13	0.42	0.83
	等于耗电 kw/h	1.1	3.5	1
	制造一瓶40L的氮气时间 h	3	1	0.2
	控制方式	PLC自动控制, 具备纯度显示、自动启停、自动排气等功能		
尺寸 (mm)	800*350*790	800*600*1070	700*600*1740	
重量(kg)	90	140	210	
储气罐	容量L	300		
	最大工作压力 bar	8		
	尺寸 (mm)	510*510*1770		
	重量(kg)	80		
整机	尺寸 (mm)	1500*1280*1840	1350*1700*1820	
	重量 (kg)	600	730	

Model	N2-2	N2-5	N2-10	
Screw Air Compressor	Air Compressor Model	OPR-5PV	OPR-7.5PV	OPR-15PV
	Power/Horsepower(kw/hp)	4 / 5	5.5 / 7.5	11/15
	Voltage(V/HZ)	380V/400V/415V 50HZ 3P, 220V/440V 60HZ 3P, 220V 50/60HZ 1P		
	Type	Frequency conversion		
	Medium	air		
	Gas storage tank(L)	270L		
	Cooling Method	air-cooled		
	Working pressure(Bar)	8		
	Gas supply volume(m <sup>3</sup> /min)	0.63	0.95	1.5
	Size (mm)	1400*650*1200		1650*680*1380
	Weight(kg)	250		355
Nitrogen Generator	Filter	CTA 3 stage		
	Purity(%)	99.99%		
	Nitrogen production(Nm <sup>3</sup> /h)	2	5	10
	Pressure(Bar)	0-6bar		
	Voltage(V/HZ)	220V 50/60HZ 1P		
	Air outlet diameter*quantity	DN15 *1		
	Power(kw)	0.1		
	Air consumption(m <sup>3</sup> /min)	0.13	0.42	0.83
	Power consumption(Kw/h)	1.1	3.5	1
	Make a 40L bottle of nitrogen time (H)	3	1	0.2
Air Tank	Control method	PLC automatic control, equipped with purity display, automatic start and stop, automatic exhaust, and other functions		
	Size(mm)	800*350*790	800*600*1070	700*600*1740
	Weight(kg)	90	140	210
	Capacity (L)	300		
Complete machine	Working pressure(Bar)	8		
	Size (mm)	510*510*1770		
	Weight(kg)	80		
Complete machine	Size (mm)	1500*1280*1840	1350*1700*1820	
	Weight(kg)	600	730	

碳钢  
低纯度激光切割专用制氮机

# CARBON STEEL

## MODEL2 LOW-PURITY LASER CUTTING NITROGEN GENERATOR



### FEATURES 特点

- 配备永磁变频螺杆空压机，节能高效
- 制氮机自备500L储氮罐，压力稳定
- 100-180Nm<sup>3</sup>/h,90-99%纯度，激光切割碳钢专用
- PLC智能控制，配备纯度显示仪，自动启停，自动排空
- 板换式冷干机+模组式吸干机+5级高效精密过滤器，保证氮气的洁净度
- Equipped with permanent magnet variable frequency screw air compressor, energy saving and high efficiency.
- The nitrogen machine is equipped with 500L nitrogen storage tank with stable pressure.
- 100-180Nm<sup>3</sup>/h,90-99% purity, specially designed for laser cutting of carbon steel.
- PLC intelligent control, equipped with purity display, automatic start and stop, automatic emptying.
- Plate change type dryer + module type dry machine +5 high efficiency precision filter to ensure the cleanliness of nitrogen.



### N2-180-99%



### APPLY 应用

Model 型号	N2-100-99%	N2-150-99%	N2-180-99%
氮气流量 Nitrogen flow	100 Nm <sup>3</sup> /h	150 Nm <sup>3</sup> /h	180 Nm <sup>3</sup> /h
配套激光切割机 Matching laser cutting machine	12KW/20KW	30/40/50KW	≥60kw或两台30kw共用 ≥4kw or two 2kw units for sharing
切割材质 Cutting material	碳钢 Carbon steel		

型号	N2-100-99%	N2-150-99%	N2-180-99%	
制氮机	纯度%	90-99%		
	产氮量Nm <sup>3</sup> /h	100	150	180
	电压V/Hz	220V 50/60Hz 1P		
	功率KW	0.3		
	控制方式	PLC自动控制，具备纯度显示、自动启停、自动排气等功能		
空压机	功率/马力 kw/hp	37/50	45/60	55/75
	类型	变频	变频	变频
	介质	空气	空气	空气
	冷却方式	风冷	风冷	风冷
	工作压力bar	16	16	16
	供气量m <sup>3</sup> /min	4.2	5.3	6.0
储气罐	容量L	600*2	600*2	1000*2
	工作压力bar	16	16	16
冷干机	类型	板换式	板换式	板换式
	处理量m <sup>3</sup> /min	6.5	6.5	8.5
	耐压bar	16	16	16
吸附式干燥机	类型	模组式	模组式	模组式
	处理量m <sup>3</sup> /min	/	5	7.5
	耐压bar	/	16	16
整机	电压V/Hz	380V/400V/415V 50Hz 3P 220V/440V 60Hz 3P		
	产氮压力bar	14.5		
	氮气纯度%	90-99%		
	出气口尺寸	DN25		
	整机尺寸m	空压机/制氮机	2.13*1.98*2.18/1.65*1.3*2.1	2.3*2.6*2.18/1.65*1.3*2.1
	整机重量kg	2500	2600	3800

Model	N2-100-99%	N2-150-99%	N2-180-99%	
Nitrogen Generator	Purity (%)	90-99%		
	Nitrogen yield(Nm <sup>3</sup> /h)	100	150	180
	Voltage (V/Hz)	220V 50/60Hz 1P		
	Power (KW)	0.3		
	Control method	PLC automatic control, with functions such as purity display, automatic start and stop, automatic exhaust, etc.		
Screw air compressor	Power/Horsepower (Kw/Hp)	37/50	45/60	55/75
	Type	PM VSD	PM VSD	PM VSD
	Medium	Air	Air	Air
	Cooling Method	Air Cooling	Air Cooling	Air Cooling
	Working pressure(Bar)	16	16	16
	Air supply (m <sup>3</sup> /min)	4.5	5.3	6.0
Air tank	Volume (L)	600*2	600*2	1000*2
	Working pressure(Bar)	16	16	16
Air dryer	Type	Plate exchange type	Plate exchange type	Plate exchange type
	Processing capacity (m <sup>3</sup> /min)	6.5	6.5	8.5
	Pressure resistant (Bar)	16	16	16
Adsorption dryer	Type	/	Modular	Modular
	Processing capacity (m <sup>3</sup> /min)	/	5	7.5
	Pressure resistant (Bar)	/	16	16
Complete Machine	Voltage: (V/Hz)	380V/400V/415V 50Hz 3P 220V/440V 60Hz 3P		
	Nitrogen production pressure (Bar)	14.5		
	Nitrogen purity (%)	90-99%		
	Air outlet size	DN25		
	Device size (m)	Screw air compressor Nitrogen Generator	2.13*1.98*2.18/1.65*1.3*2.1	2.3*2.6*2.18/1.65*1.3*2.1
Device weight (Kg)	2500	2600	3800	

不锈钢  
高纯度激光切割专用制氮机

# STAINLESS STEEL

MODEL3  
HIGH PURITY LASER  
CUTTING SPECIAL NITROGEN GENERATOR



## FEATURES 特点

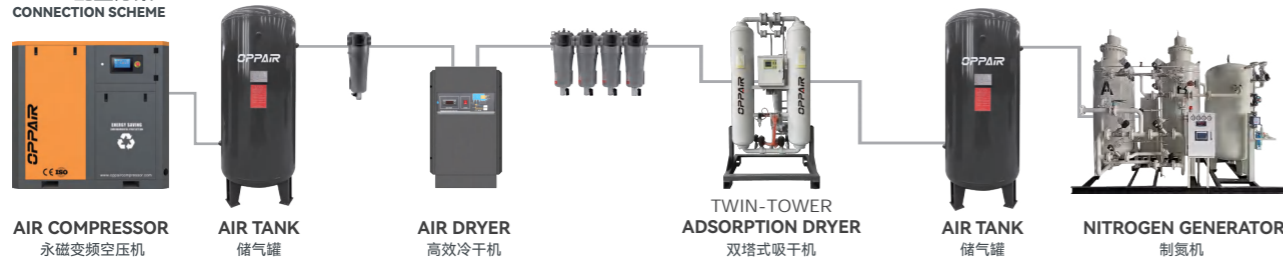
- 100-200Nm3/h, 99.99%高纯度, 激光切割不锈钢专用
- PLC智能控制, 配备纯度显示仪, 自动启停, 自动排空
- 板换式冷干机+模组式吸干机+5级高效精密过滤器, 保证氮气的洁净度
- 6公斤/16公斤两款可选
- 100-200Nm3/h, 99.99% high purity, specially designed for laser cutting of stainless steel.
- PLC intelligent control, equipped with purity display, automatic start and stop, automatic emptying.
- Plate change type dryer + Modular adsorption dryer +5 high efficiency precision filter to ensure the cleanliness of nitrogen.
- 6bar/16bar two options.



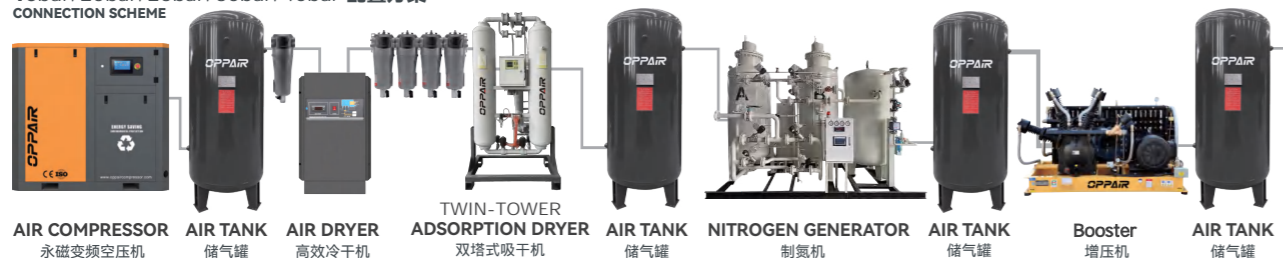
## APPLY 应用

Model 型号	N2-100-99.99%	N2-150-99.99%	N2-200-99.99%
氮气流量 Nitrogen flow	100 Nm3/h	150 Nm3/h	200 Nm3/h
配套激光切割机 Matching laser cutting machine	≤2KW	3KW	≥4kw或两台2kw共用 ≥4kw or two 2kw units for sharing
切割材质 Cutting material	不锈钢 Stainless steel		

### 6BAR 配置方案 CONNECTION SCHEME



### 16bar/20bar/25bar/30bar/40bar 配置方案 CONNECTION SCHEME



型号	N2-100-99.99%	N2-150-99.99%	N2-200-99.99%	
制氮机	纯度%	99.99%		
	产氮量Nm3/h	100	150	200
	电压V/HZ	220V 50/60HZ 1P		
	功率KW	0.3		
	控制方式	PLC自动控制, 具备纯度显示、自动启停、自动排气等功能		
空压机	功率/马力 kw/hp	75/100	90/125	110/150
	类型	变频	变频	变频
	介质	空气	空气	空气
	冷却方式	风冷	风冷	风冷
	工作压力bar	8	8	8
	供气量m3/min	12.6	15	19.5
储气罐	容量L	1000*2	1000*2	2000*2
	工作压力bar	8	8	8
冷干机	处理量m3/min	13.5	15	20
	耐压bar	10		
吸附式干燥机	类型	双塔式		
	处理量m3/min	7.2	15	20
	耐压bar	10	10	10
整机	电压V/HZ	380V/400V/415V 50HZ 3P 220V/440V 60HZ 3P		
	产氮压力bar	6bar (1-6bar可调)		
	氮气纯度%	99.99%		
	出气口尺寸	DN32	DN40	DN50
	整套安装尺寸m	10-12*1.5*2.9	12-14*2*3.1	13-15*2*3.2
	整机重量kg	4800	6400	8300

Model	N2-100-99.99%	N2-150-99.99%	N2-200-99.99%	
Nitrogen Generator	Purity (%)	99.99%		
	Nitrogen production (Nm3/h)	100	150	200
	Voltage (V/HZ)	220V 50/60HZ 1P		
	Power (KW)	0.3		
	Control method	PLC automatic control with functions such as purity display, automatic start and stop, automatic exhaust, etc.		
Screw air compressor	Power/Horsepower (Kw/Hp)	75/100	90/125	110/150
	Type	PM VSD	PM VSD	PM VSD
	Medium	Air	Air	Air
	Cooling method	Air Cooling	Air Cooling	Air Cooling
	Working pressure (Bar)	8	8	8
	Air supply (m3/min)	12.6	15	19.5
Air tank	Capacity (L)	1000*2	1000*2	2000*2
	Working pressure (Bar)	8	8	8
Air dryer	Processing capacit (m3/min)	13.5	15	20
	Pressure resistance (Bar)	10		
Adsorption dryer	Type	TWIN-TOWER		
	Processing capacit (m3/min)	15	15	20
	Pressure resistance (Bar)	10	10	10
Complete Set	Voltage: (V/HZ)	380V/400V/415V 50HZ 3P 220V/440V 60HZ 3P		
	Nitrogen production pressure (Bar)	6bar (1-6bar adjustable)		
	Nitrogen purity (%)	99.99%		
	Air outlet size	DN32	DN40	DN50
	Complete installation size (m)	10-12*1.5*2.9	12-14*2*3.1	13-15*2*3.2
	Complete set weight (Kg)	4800	6400	8300