AIRON®

INDUSTRY

aironindustry.com

NITROGEN GENERATOR

High Efficiency Nitrogen Generation:
AIRON Industry offers high quality nitrogen generators tailored to your industrial needs. Optimise your business processes with reliable and efficient production.

Custom Design and Modular Solutions:
Meet the requirements of your business with our custom-designed NS series nitrogen generators and modular solutions tailored to customer needs. Flexibility and performance in one!

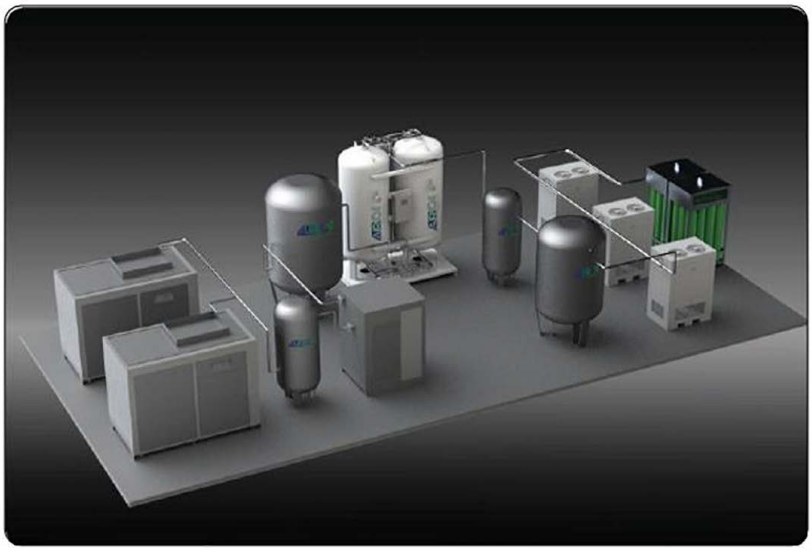
Low Energy Consumption and Cost Savings:
Reduce your nitrogen production costs with high energy efficiency. Switch to a sustainable production process with our environmentally friendly solutions.

Industry Standard Reliability:
Our NS series nitrogen generators are fully compliant with industry standards and offer a long-lasting and reliable performance. Increase your business continuity!

Technical Features

Purity range	: 95 - 99,999
Max. Output Pressure	: 11 barg
Inlet Air Quaility According to ISO8573	: 1.4.1
Operating Temperature	: 5 to 45
Protection	: 54
Frequency [Hz]	: 55 to max 85
Noise Level [dB(A)]	: 50-60
Power Consumption [kW]	: 0,15

- TAILOR MADE SOLUTION
- PRODUCE YOUR OWN GAS
- LOW ENERGY CONSUMPTION
- DON'T WASTE YOUR MONEY



AIRON NS NITROGEN GENERATORS										
Airon Model	Purity (%)	95%	97%	98%	99%	99,5%	99,9%	99,99%	99,995%	99,999%
NS 30	Capacity(Nm³/h)	6,5	6	5	4	3,3	2,4	1,6	1,2	0,9
NS 40		13	10,2	9,1	7,2	5,9	4,2	2,3	2	1,6
NS 80		19,5	16	14	11	9,7	6,5	3,5	2,8	2,3
NS 100		28	22	20	16	13	9	4,6	3,6	2,9
NS 120		35	30,5	25	21	18,5	13	8,7	6,6	5,1
NS 200		58	46	40	32	28	21	15	12	8,5
NS 300		97	67	60	54	48,5	33	22	18	14
NS 400		117	93	84	71	60	46	30,5	25	21
NS 500		152	124	106	85	76	60	41	32	25
NS 800		215	181	157	121	105	80	62	49	42
NS 1000		270	221	196	156	138	115	100	70	58
NS 1400		385	325	295	223	195	145	125	95	85
NS 2000		450	379	329	259	220	170	132	108	98
NS 3000		640	535	467	376	327	256	171	143	130
NS 4000		925	772	670	520	445	330	210	177	163
NS 5000		1200	962	845	661	605	430	268	215	192
NS 6000		1500	1481	995	763	650	492	310	245	220

1. Stated flow in Nm3/h are for operation with reference to 20 °C, sea level, 7,5 bar inlet pressure.
2. Required inlet pressure is 1-1,5 bar(g) aboved required product outlet pressure depending on the purity and vessel sizes
3. Stated IP rating forthe electrical cabinet is IP54. othersavailable on request. contact with us.

OXYGEN GENERATOR

Healthy and Reliable Oxygen Production:
Ensure high quality oxygen production with our OS series oxygen generators designed for use in healthcare, medical and industrial fields.

Compact and Portable Solutions:
Benefit from the advantages of mobile and portable use with compact oxygen generators suitable for your needs. Gain flexibility in your healthcare services.

High Precision Control and Monitoring:
Our OS series oxygen generators are equipped with precise control and monitoring systems. Meet with technology to achieve reliable results.

Solutions for Various Application Areas:
Get solutions for every sector with our OS series oxygen generators that offer a wide range of applications for use in healthcare, industry, laboratories and many more.

AIRON OS OXYGEN GENERATORS				
Airon Model	Purity (%)	90%	93%	95%
OS 70	Capacity(Nm^3/h)	0,8	0,7	0,6
OS 100		1,4	1,2	1
OS 200		2,7	2,5	2,2
OS 300		3,9	3,6	3,3
OS 500		5,7	5,2	4,6
OS 800		9,9	8,6	8,1
OS 1200		12,6	11,6	10
OS 1400		15	13,6	12,4
OS 2000		20,1	17,1	16
OS 3000		30	27	25
OS 4000		42	38,5	35
OS 6000		60	55	50
OS 8000		80	73,6	67
OS 10000		106	96	91
OS 14000		141	126	111

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3. Stated IP rating for the electrical cabinet is IP54. others available on request. contact with us.

HYDROGEN GENERATOR

Discover the power of Proton Exchange Membrane technology, the heart of our hydrogen generators. PEM technology offers high efficiency in electrolysis, separating hydrogen from water with minimal energy input. This groundbreaking technology ensures a cleaner and more

MODEL	H_2 (Nm3/h)	PURITY	O_2 (Nm3/h)	PURITY
G1	0,66	99,5%	0,33	99%
G2	1,33	99,5%	0,66	99%
G4	2,66	99,5%	1,33	99%
G6	4	99,5%	2	99%
G8	5,33	99,5%	2,66	99%
G10	6,66	99,5%	3,33	99%
G13	8,66	99,5%	4,33	99%
G16	10,66	99,5%	5,33	99%
G24	16	99,5%	8	99%
G32	21,33	99,5%	10,66	99%
G48	32	99,5%	16	99%
G64	42,60	99,5%	21,3	99%

MODEL	H_2 (Nm3/h)	PURITY 1	PURITY 2	PRESSURE *(BAR)*
SIRIO 50	0,5	99,99%	99,999%	15-30
SIRIO 75	0,75	99,99%	99,999%	15-30
SIRIO 100	1	99,99%	99,999%	15-30
SIRIO 125	1,25	99,99%	99,999%	15-30
SIRIO 150	1,5	99,99%	99,999%	15-30
SIRIO 175	1,75	99,99%	99,999%	15-30
SIRIO 200	2	99,99%	99,999%	15-30

The Mercury Advance and Mercury System can be realized in "D" version, with purifier integrated, that allows to:

-achieve an economic saving, no need to buy an extra module;
-take less time for installation, because the module is integrated;
-optimize the space.

The D version of Mercury generators produces the purest hydrogen and oxygen for welding, heat treatments in general, and any application where the continuous control of gas purity is important


BUSTER
2


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N2
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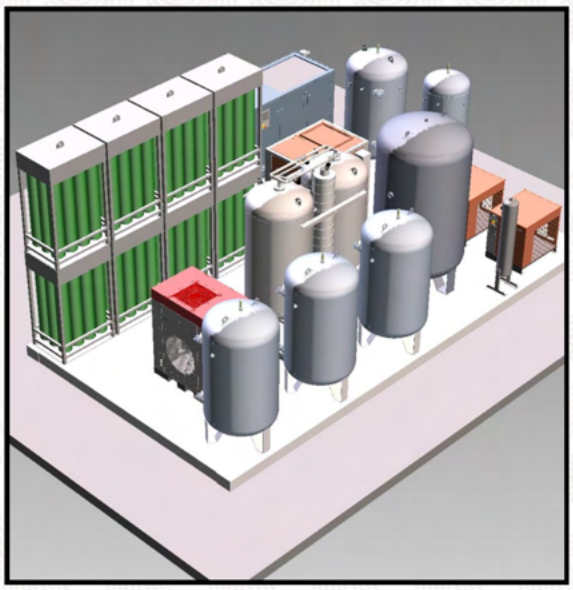
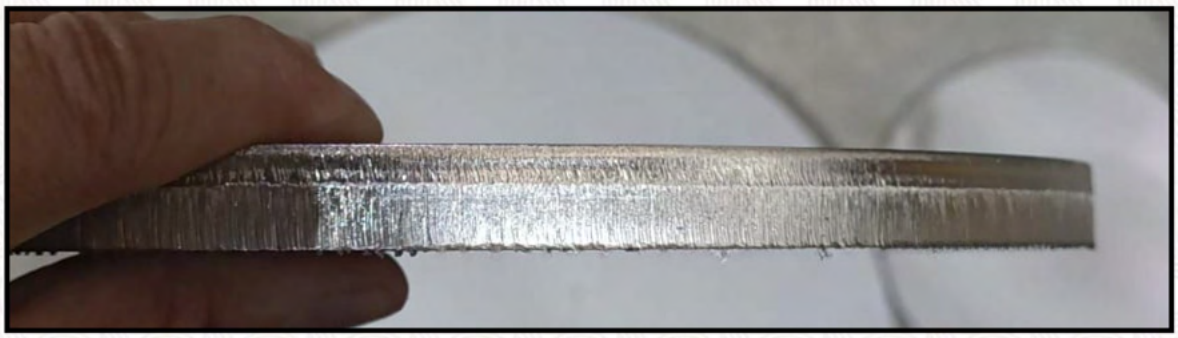
N2



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N2


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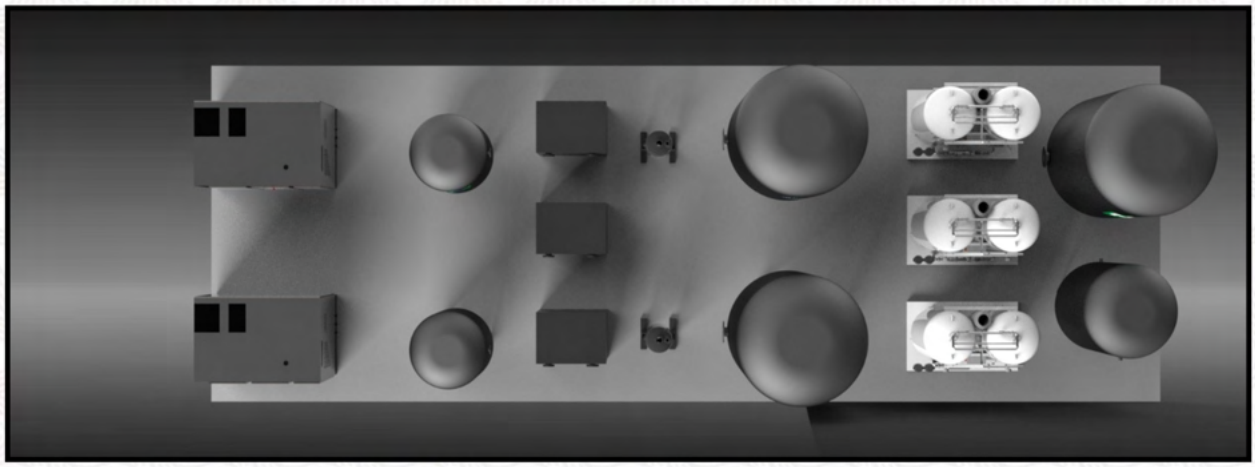
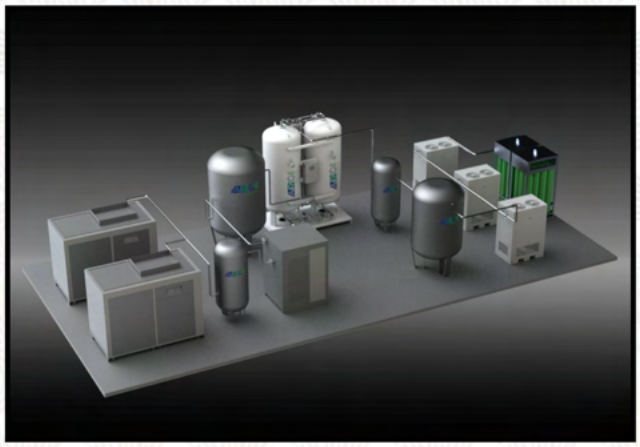
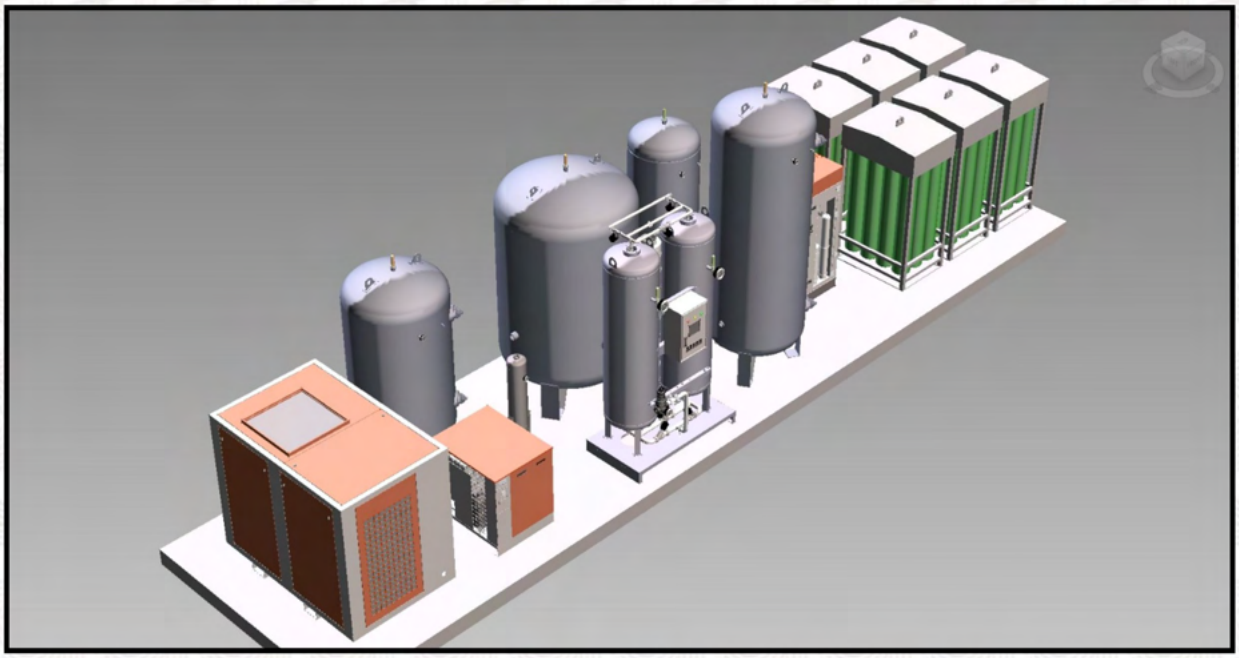
N2






N_2


40 mm




TROGEN
TANK
N2
DRY VESSEL
TANK


N2
N2


INDUSTRY

COMPRESSORS

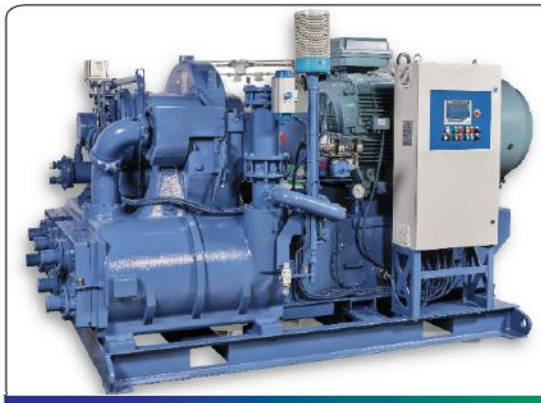
High Performance Compressor Technology:
Our company is at the forefront of industrial compressor technology. We are working with preferred brands for high performance, low energy consumption and long life.

Compressors in Various Capacities:
We offer solutions tailored to your business needs with our compressor models in various capacities suitable for your air, gas and vapour compression needs.

Advanced Control and Automation Systems:
Our compressors are equipped with advanced control and automation systems. Use smart technology to increase the efficiency of your business.

Reliability:
Our compressors are characterised by easy maintenance and long life. We offer a reliable solution to ensure your business continuity.

SCREW TYPE COMPRESSOR



TURBO COMPRESSOR

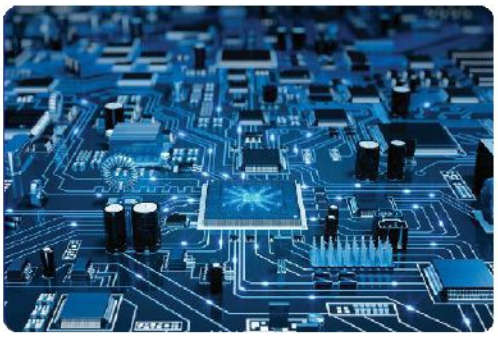
MEDIUM PRESSURE BOOSTER *(40 BAR)*

NITROGEN BOOSTER *(200-300 BAR)*

OIL FREE OXYGEN BOOSTER *(150 BAR)*

ELECTRONICS

By using high purity nitrogen gas, our customers ensure that oxidation is prevented in soldering processes. Resulting in a cleaner and more durable soldering process. With high purity nitrogen gas, the connection quality of circuit boards is improved after production, and labour costs are reduced due to less cleaning and less rework.



LASER CUTTING

The use of high purity nitrogen gas as cutting gas in laser cutting machines prevents oxidation on the cutting surfaces of stainless steel materials and provides cleaner cutting surfaces. The preference of nitrogen gas instead of oxygen gas in the cutting of carbon steel with the developed fibre laser cutting machines increases the cutting speed by approximately 2.5 - 3 times.

COAL AND GOLD MINING

The use of pure nitrogen gas in coal mines allows the removal of oxygen from the environment, thus preventing combustion and explosions in the mine. The use of pure oxygen in gold separation processes shortens the duration of the process and significantly benefits productivity.

OIL & GAS INDUSTRY

With nitrogen gas used in the Oil and Gas Industry, tankers in refineries are blanketing filled and emptied safely, thus avoiding chemical reactions and preventing fires that may occur. Nitrogen gas is used for scavenging long pipelines of refineries and testing them at different pressures. Thus, it is possible to prevent damage and losses in advance.

MARINE AND OFFSHORE

In chemical tankers, cruide oil, liquefied gases tanker transport, inerting and sweeping operations are carried out with nitrogen gas during loading, unloading and transport of products to tankers. For tankers larger than 8000 DWT, on board nitrogen gas production system has been made compulsory. As AIRON INDUSTRY, we install nitrogen generator systems for a safe shipment and offer more environmentally friendly solutions thanks to our low energy costs.

MEDICAL

Oxygen is a vital gas for hospitals. With AIRON Oxygen Generator Systems, we offer a better alternative to liquid oxygen and cylinder sources in hospitals. We design our oxygen generator systems with 93%-95% purity at low operating costs and ensure uninterrupted production. We eliminate your installation problems with our plug and play oxygen generator systems in containers and on chassis.

CHEMICALS

With AIRON Nitrogen generators, you can guarantee the safe transfer of chemical materials, the removal of unwanted oxygen and impurities by sweeping the chemicals in the tanks before changing the chemicals in the tanks, the prevention of oxidation that may occur during production, the structure of the chemicals with the protective atmosphere during storage, as well as the absence of harmful gases into our atmosphere.

GLASS INDUSTRY

The use of oxygen gas in the glass industry allows the glass to be melted faster and more efficiently, cut, polished and heat treated more efficiently. At the same time, oxygen prevents the formation of air bubbles as it can dissolve in the glass melt better than air.

METAL AND HEAT TREATMENT

Heat treatment is the general name of the processes applied to improve the mechanical properties of metals. In heat treatment furnaces and autoclave furnaces that require high temperature application, it is possible to prevent oxidation of metals by creating a protective atmosphere in the furnace with nitrogen gas. In autoclave composite furnaces used for the developing aviation, defence and automotive industries, nitrogen gas is sent into the furnace at high pressures of approximately 12-15 bar.

FOOD & BEVARAGE

Nitrogen, a dry and inert gas, prevents oxidation, degradation and contamination in the processing of food and beverages, preserving quality and original flavour. Nitrogen is a gas widely used in packaging and protects the product against crushing by keeping the packaged product more inflated. In addition, by packaging with pure nitrogen gas, the shelf life of the products is significantly increased.

AVIATION

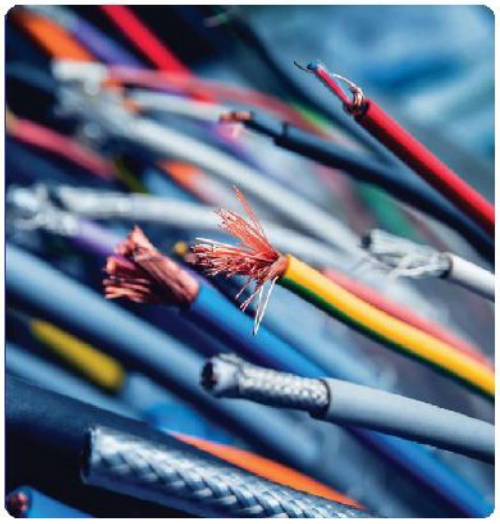
Dry and inert nitrogen gas is useful in preventing oxidative damage to tyres caused by moisture and oxygen. In addition, nitrogen gas keeps tyre pressure more stable and eliminates problems caused by heating. In addition, there is nitrogen gas in shock absorber systems and escape slide bearing systems.

PLASTIC INJECTION

The use of high pressure nitrogen gas in the plastic injection moulding production process ensures that the product surface quality and the colour of the product are of better quality. In addition, thanks to the gaps created in the product with high pressure nitrogen gas, it allows saving raw materials in production and thus reducing costs.

PHARMACEUTICALS

Pure nitrogen gas helps maintain product (drugs) integrity in pharmaceutical packaging and laboratory processes. In processes s uch as the transfer and packaging of products, product quality is maintained by deoxygenation and the shelf life of the products is increased.



WIRE AND CABLING

During cable manufacturing, air, moisture and oxygen molecules enter the coating material and the wire when coated. Oxidation is prevented by performing the process under nitrogen gas atmosphere. At 450 °C, the liquid zinc residue on the galvanised wires removed from the liquefied zinc bath is removed by spraying nitrogen gas. Copper wire material is subjected to annealing process to increase flexibility and resistance. During the annealing process, nitrogen is pushed into the furnace to prevent oxidation at high temperatures in the furnace.

AQUACULTURE & OZONE

Since fish take oxygen through direct contact with water, dissolved oxygen is the most important factor in obtaining good results in fish farming. The efficiency of fish farming with oxygen gas feeding is significantly improved. Adequate oxygen levels in the water always favour not only growth but also the health, appetite and general welfare of the fish. Oxygen also helps to reduce the effects of heat-induced stress in fish.

GAS SPRING INDUSTRY

Gas springs consist of a precision rod connected to a piston that moves in a sealed pipe containing pressurised nitrogen gas and oil. Gas springs contain pure nitrogen gas at pressures of 200-250 bar for load carrying purposes. Nitrogen gas with 7-8 bar pressure produced with AIRON nitrogen generators is pressurised into the shock absorber at the desired pressures with the help of a nitrogen booster. Gas springs are widely used in automotive, aviation, furniture and medical sectors.

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