

FLOXAL™ N₂



FLOXAL™ Solutions

FLOXAL™ Solutions cover the supply of gas generated at your site - using plants invested, operated, and maintained by Air Liquide - meeting your demand specifications of purity, pressure and flow rate, with full back-up and guaranteed performance.

Three molecules are made available under the FLOXAL™ offer: nitrogen, oxygen and hydrogen. For each molecule, various generation technologies are used to ensure satisfaction of your gas needs at the required specifications at a competitive price.

FLOXAL™ N₂

Because you need nitrogen supply adapted to your unique process requirements we propose a full range of state of the art plants built to a standard design thus ensuring safety, reliability, and cost efficiency. We guarantee continuous supply of gas, worry-free, so that you can focus on your business. Full gas availability is ensured through tele-monitored performance tracking supported by a network of alarm response centres and qualified service technicians as well as auxiliary bulk back-up storage on your premises.

Markets & Applications

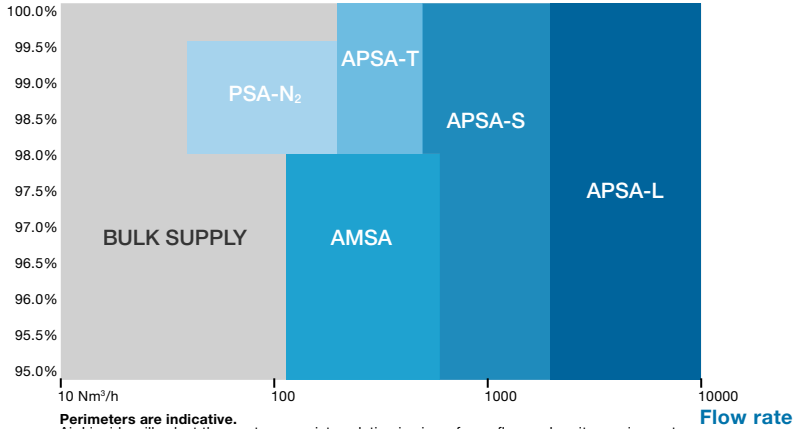
Metals | Glass | Electronics | Chemical and Refineries |
Food | Pharmaceuticals

Heat treatment | Metal refining | Inerting | Purging |
Blanketing | Packaging

NITROGEN SUPPLY PORTFOLIO

On-site nitrogen portfolio

Purity (Nitrogen + inert gases)



On-site nitrogen product line

Product	APSA-T	APSA-S	APSA-L	AMSA	PSA-N ₂
Technology	LIN - assisted cryogenic distillation	LIN - assisted cryogenic distillation	Turbo - cooled cryogenic distillation	Membrane	Adsorption
Residual oxygen	1 – 3 ppm	1 – 3 ppm	< 1 ppm	2 % – 5 %	0.5 – 2 %
Generator flow range (Nm³/h)	200 – 450	650 – 2100	1100 – 5500	120 – 600	40 – 200
Pressure (barg)	6 – 8	4 – 8.5	5 – 9	10	7
Key feature	Extensive turn-down	Low energy	Self-sufficient auto back-up	Modular	Adapted purity
Main application	High purity atmospheres	High purity atmospheres	High purity atmospheres	Purging	Inerting
Primary markets	Material processing	Glassmaking, metal coating	Electronics, remote locations	Chemical storage	Pharma, food packaging

LIN = Liquid Nitrogen - GAN = Gaseous Nitrogen

APSA product line delivers the FLOXAL™ promise: peace-of-mind at best-in-class total cost of ownership.

APSA-T

Power efficient cryogenic purity gas N₂ generator.

BENEFITS

- Wide product range to meet various customer needs
- Flexible modular system design
- Energy efficient operation
- Guaranteed plant up-time
- Automated operation and uninterrupted gas supply

APSA-S

Multi-cycle cryogenic purity gas N₂ generator. Including all benefits in APSA-T.

ADDITIONAL BENEFITS

- Wide operating range adapted to evolve with customer demands
- Flexible optimized balance of energy efficiency and investment
- Higher productivity
- Extended pressure range
- Increased plant up-time
- Improved transportability



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World leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with close to 50,000 employees and serves more than 2 million customers and patients. Oxygen, nitrogen and hydrogen have been at the core of the company's activities since its creation in 1902. Air Liquide's ambition is to be the leader in its industry, delivering long-term performance and acting responsibly.