

## Nitrogen plant for laser cutting systems

PSAL® - SN with a nitrogen purity of 99.9999 % (1 – 3 ppm residual oxygen) Air factor 2.9

**AIRCO® Systems GmbH** has been very successful in offering both **space-saving** and **effective and convenient complete solutions** for onsite nitrogen generation. The so-called “**PSAL® SN - Systems**” combine modern **platform construction** with years of experience in the field of **high-purity nitroge generation**.

The system, including all components, is assembled on the prefabricated, modular **automotive skits** in our production facility in Frankfurt am Main. **Compressed air preparation, nitrogen generator, product container, nitrogen drying, N-Kat®, filter** and the **high-pressure compressor** find space on the always identical basic structure.

After completion of the installation, the entire system is approved by our technology and our notified **CE body** and the installation is then retracted. The systems are extensively tested for function and tightness. The settings can already be adapted to the specifications of our customers.

In this way, we enable commissioning at the customer's site in record time and realize the basic idea of the **Plug & Play application**. The loading and positioning, in which no more than one forklift is required, is also characterized by the **compact** design.

Our nitrogen plant is professionally connected to the supply gases for the laser during installation by our trained technicians.

In the last step, our customers receive training directly at their plant by our technicians so that they can plan and monitor their **nitrogen production** themselves in the future.

Thanks to our **N-Kat® - system**, we guarantee a purity of up to 6.0 with an air factor of 2.9 – this is **the only such product in the world**.

The hydrogen reacts in the N-Cat® with the residual oxygen of the nitrogen. The chemical reaction produces steam and heat, which are then removed through filtration and drying. Through this process, we operate with much smaller compressed air compressors and **thus save energy** in the production of high nitrogen purity.



## PSAL® - SN NITROGEN GENERATOR

### SKID PLATFORMS - OVERVIEW

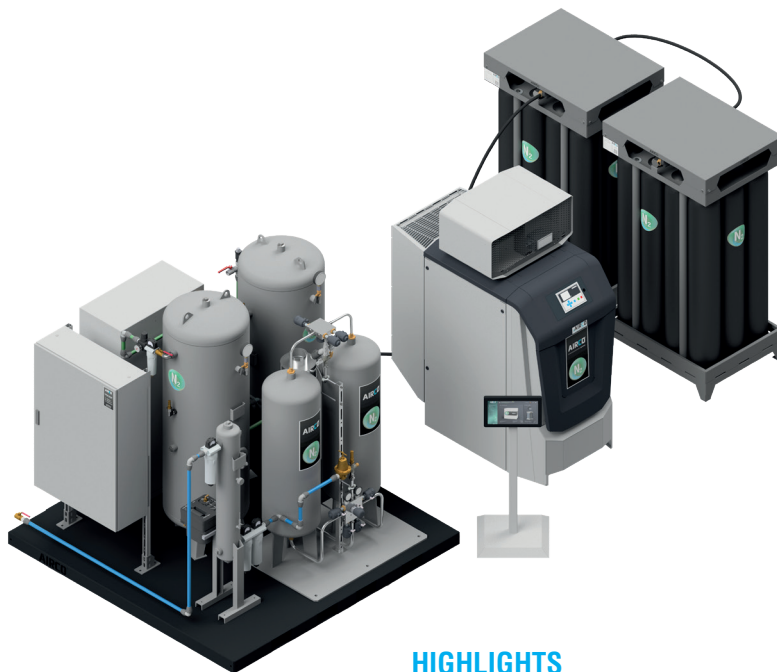
Skid platform	Volumetric flow at 99.9999 % Nm³/h	Platform dimensions LxWxH in mm	Platform weight (approx. in kg)	Total weight (approx. in kg)	Power connection	Bundle (recommendation)
PSAL 15 SN	15	2200 x 2200 x 2500	2000	2000	32A	1
PSAL 25 SN	25	2200 x 2200 x 2500	1700	2230	50A	2
PSAL 40 SN	40	2200 x 2200 x 2500	2100	2630	50A	4
PSAL 55 SN	48	4400 x 2200 x 2500	1787/1420	3207	50A	6
PSAL 74 SN	74	4400 x 2200 x 2500	2044/1519	4093	63A	8
PSAL 100 SN	100	4400 x 2200 x 2500	2380/1166	4606	63A	8

\* High-pressure compressor is separate beside the platform (1500 x 800 x 1880 mm, 530 kg)

\*\* System mounted on two platforms | \*\*\* Plant on 2 platforms, 2 high-pressure compressors separately

### SPECIFICATIONS / DATA

- Outlet pressure max. 300 bar
- Ambient air +10 °C to +45 °C
- Nitrogen purity 5.0 = 10 ppm
- Nitrogen temperature +10 °C above ambient temperature
- Highest purity 6.0 = 1 ppm



### BENEFITS

- Plug & Play, tested on over 6000 systems worldwide
- Immediately operational
- Low maintenance effort
- High quality, worldwide service
- N-KAT® technology, air requirement factor 2.9
- Purity at 1 – 10 ppm, 6.0 – 5.0



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### HIGHLIGHTS

- Small footprint and easy handling
- Extremely low power consumption
- Extremely low air consumption
- Better cutting results than tank and bundle solutions
- Industry 4.0, query & control of the system from anywhere in the world