

Compact Specialty Gas Cabinet for Semiconductor Manufacturing

The GAS'BOT NANO is a compact, fully automated gas supply system for bulk and specialty gases designed for high-throughput semiconductor factories. Thanks to its state of the art dimensions, NANO can be seamlessly integrated into existing sub-fab environments.

Advanced controls and connectivity

Built on a modern safety PLC platform, GAS'BOT NANO ensures long term reliability and future readiness. The control architecture is highly flexible and supports a wide range of industry standard communication protocols, allowing easy adaptation to diverse fab requirements. Predefined routines and a clear HMI enable intuitive operation, while the open interface concept allows straightforward integration into existing fab monitoring systems.

Highest uptime through smart access design

Every design decision of GAS'BOT NANO is focused on maximizing uptime. The optimized internal layout allows improved component accessibility enabling faster service operations and reduced downtime.

More performance per square meter

GAS'BOT NANO achieves higher gas delivery capacity per square meter of floor space compared to conventional systems. Its space-optimized cabinet design is ideal for tightly planned green-field fabs or retrofit installations in existing facilities with restricted installation volumes.

Safety and Quality first

A precise selection of dedicated components and many years of experience enable SEMPA SYSTEMS to build best in class gas systems of the highest quality combined with an unsurpassed level of safety.



NANO Features

- State of the art cabinet dimensions for high volume semiconductor fabs
- Higher gas delivery capacity per square meter
- Improved accessibility for faster maintenance
- PLC-automated compact gas cabinet
- Dead-space-optimized design

Configure your GAS'BOT NANO

A wide range of configuration options allows the system to be adapted precisely to your application and gas type – from heating and cooling solutions to low-pressure gas handling, high-alloy internals and cylinder accessory options.



Unsurpassed Safety

- Proven gas , UV-IR sensors
- SEMI S2 compliant
- ATEX-based design where applicable
- Overpressure protection



Gas specific Solutions

- Process line heating
- Cylinder heating or cooling
- High alloy steel design for corrosive gases
- Cylinder scales

Your GAS'BOT for every application

The GAS'BOT family offers solutions for different process needs and budgets. In addition to the NANO, SMART, PRO and EXPERT versions are available to support a wide range of semiconductor applications.

For any questions or to explore the full GAS'BOT family, visit www.sempa.de or contact sales@sempa.de.

Technical Data

Dimensions:
640 (w) x 2060 (h) x 520 (d)

Weight:
~400 kg

Electrical Connection:
1 x 110 - 240 V-AC
50/60 Hz NSV/USV

Inlets:
1 x 1/4" VCR female purge (5-7 bar)
1 x 1/4" VCR female Venturi (5 -7 bar)
1 x 1/4" Swagelok connection dry
pneumatic air (4 - 7 bar)
1 x 1/2" G sprinkler (2-3 bar)

Outlets:
1 x 1/4" VCR female process line (TBD)
1 x 1/2" VCR female Venturi
1 x 4" (101.6 mm x 1.2 mm) exhaust

