

SAES Pure Gas

The Technology of Pure Gas



saes
getters

Corporate Overview

SAES Pure Gas, Inc., a member of the SAES Getters Group, is the world leader in gas purification technology. SAES develops ultra high pure gas handling equipment, supplying gas purifiers for a wide range of bulk and specialty gas applications.

SAES Pure Gas began production in 1989, with the introduction of the MonoTorr® gas purifier. As a pioneer in developing heated getter technology, SAES continues to set the standard for the market with its superior impurity capacities and longer lifetime for the purifier. In order to meet the needs of an increasing technological market, SAES Pure Gas has created the largest portfolio of gas purifiers available for all gas purification needs. With the introduction of the ambient temperature MicroTorr® purifier and the MegaTorr® bulk gas purifier, SAES Pure Gas can tailor each product to satisfy a wide range of flow rates and gas applications.

Located in San Luis Obispo, CA, USA, the company's main office and manufacturing facility are equipped with three complete laboratories- one devoted to purification material testing & development, the other two focused on final equipment inspection & testing with APIMS. The facility also houses a Class 10,000 Cleanroom and a certified Class 100 Cleanroom for precision UHP welding and critical component assembly.

SAES Pure Gas purifiers are engineered for simplified installation, maintenance-free operation and have the backing of over 60 years of expertise in getter technologies by the SAES Getters Group.

We support your innovation

Applications

- Analytical zero & carrier gas applications
- Weld gas
- Process & purge gas purification for gas cabinets
- Compound Semiconductor - MOCVD, MBE, MOVPE
- Fiber Optics
- Photolithography
- Gate Oxide
- Silicon Epitaxy
- Purging & system drydown
- R&D laboratory
- Implant
- Radiation detector tubes
- H2/He FID fuel
- Stored gas for satellites
- Metalization process (PVD, CVD)
- Diffusion processes
- Crystal growing
- Gas Pad



MicroTorr®



The MicroTorr® line, offered for bulk, CDA, and specialty gases in a wide range of sizes, uses ambient temperature technology to meet individual flow and purity requirements.

Flowrates: 500 sccm – 1000 slpm

Gases purified: N₂, Ar, He, Kr, Ne, Xe, SiH₄, NH₃, DMHz, SF₆, CH₄, C₂H₆, C₃H₈, C₄H₁₀, CF₄, C₂F₆, CHF₃, C₃F₈, C₂F₄H₂, CCl₄, O₂, NO, N₂O, CO, CO₂, SO₂, CDA, GCl₃, Cl₂, SiH₂Cl₂ (DCS), SiHCl₃ (TCS), HBr, HCl, SiCl₄, H₂Se, H₂S, SiF₄, B₂H₆, BF₃, GeCl₄, CClH₃, GeH₄, AsH₃, PH₃
Impurities removed:* (< 1ppb) H₂O, O₂, CO, CO₂, H₂, acid, bases, and hydrocarbons.

MonoTorr®

The MonoTorr® series, available for flow rates up to 150 slpm, uses getter technology to remove impurities, including N₂ and CH₄.

Available with fully automated control, continuous reporting of operational status and a patented Life Status Sensor.

The MonoTorr® High Flow series, offers continuous control and diagnostics that are managed by the user friendly PLC.

A complete set of options is available to satisfy the most demanding operator and facility requirements.

Flowrates: to 150 slpm

Gases Purified: N₂, Ar, He, Kr, Ne, Xe, H₂
Impurities removed:* (<1 ppb) O₂, H₂O, CO, CO₂, H₂, CH₄, N₂



MegaTorr®



Flowrates:

3 – 10,000 Nm³/hr

Gases purified: N₂, Ar, He, Kr, Ne, Xe, H₂, O₂, NH₃, CDA

Impurities removed:*
 (< 1 ppb): H₂O, O₂, CO₂, CO, H₂, N₂, THC
 (Total Hydrocarbons).

SAES offers a wide selection of bulk gas purification solutions. Many units include regenerability to allow for continuous operations.

Options available include:
 Inlet/outlet isolation valves, MODBUS data communications, touch screen interfaces, separate control power, uninterruptible power supply, and more.



FaciliTorr®

The FaciliTorr® ensures consistent gas quality while removing all oxygen impurities, resulting in welds that are continuously reproducible. In purging applications, provides fast drydown of UHP gas systems during start-up and operation.

Flowrates: to 75 slpm

Gases purified: N₂, Ar, He, Kr, Ne, Xe
Impurities removed:* (<1 ppb) H₂O, O₂, CO₂, CO, H₂, NMHC



GC50®

The GC50® series is specifically designed for purifying carrier gases used in chromatography, as well as other analytical applications with critical carrier gas purity requirements.

Flowrates: 20 sccm – 200 sccm

Gases Purified: N₂, Ar, He, Kr, Ne, Xe
Impurities removed:* (<1 ppb) O₂, H₂O, CO, CO₂, H₂, CH₄, N₂



* Impurity removal dependent on gas purified

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