saes group

SAES Pure Gas

The Technology of Pure Gas

All Products and Services

MicroTorr: Ambient In-Line Purifiers

MicroTorr Purifiers can be tailored to many different customer applications, by combining the model size with a selection of gas-specific purification materials. Optional features include an ultrafine 0.003µm particle filter, inlet/outlet valves, bypass assemblies or custom manifold assemblies.

Model	MC1	MC50	MC190/ MC200	MC400/ MC450	MC500	MC1500	MC3000	MC4500	MC9000	MC14K
Max Flow (slpm)	5	10	50	60	100	250	500	1,000	1,000	2,000
Avg Flow (slpm)	0.5	1.5	5	9	12	40	80	200	300	400

Common Gases	Media	All Gases Purified	Impurities Removed
N_2 Ar, He, Kr, Ne, Xe	902	N_2, Ar, He, Kr, Ne, Xe, CH_4, C_2H_6, C_3H_8, SF_6, Fluorocarbons	H_2O, H_2, CO_2, O_2, CO to < 100 ppt; Organics, Acids, Refractory Compounds to < 1 ppt; Bases < 5 ppt, Metals < 1 ppbV
H_2	904	H_2, D_2, H_2/Inert Mixtures	H_2O, CO_2, O_2, CO to < 100 ppt; Organics, Acids, Refractory Compounds to < 1 ppt; Bases < 5 ppt, Metals < 1 ppbV
O_2 CDA	203	N_2, Ar, He, Kr, Ne, Xe, H_2, D_2, CDA, O_2, N_2O	H_2O, CO_2 to < 100 ppt; Organics, Acids, Refractory Compounds to < 1 ppt; Bases < 5 ppt, Metals < 1 ppb
NH_3	702	NH_3, C_2H_7N, $C_2H_8N_2$, C_2H_4, C_3H_6, CH_3SiH_3, GeH_4, SF_6, H_2/ SiH_4 mixtures	H_2O, O_2, CO_2, NMHCs, Metals to < 1 ppb
CO_2	804	CO_2	H_2O, H_2, O_2, CO to < 100 ppt; Organics, Acids, Refractory Compounds to < 1 ppt; Bases < 5 ppt, Metals < 1 ppbV
Corrosive Gases	302	HCl, Cl_2, B_2H_6, BCl_3, $CClH_3$, CO_2, $GeCl_4$, GeH_4, H_2S, H_2Se, HBr, N_2O, NF_3, NO, $SiCl_4$, SiF_4, SiH_2Cl_2, $SiHCl_3$, SO_2, $CHClF_2$, BF_3, N_2O, NF_3, NO, $SiCl_4$, SiF_4, SiH_2Cl_2, $SiHCl_3$, SO_2	H_2O, Metals to < 1 ppb

Palladium Hydrogen Purifiers

SAES Pure Gas Palladium Hydrogen Purifiers produce the purest hydrogen on the planet. Only hydrogen is able to pass through the palladium membrane, while all other impurities travel out the bleed line. This patented micro-channel palladium membrane technology removes all impurities to below part-per-billion (ppb) levels.

Palladium Advantages

- Ultra pure hydrogen from various sources
- High flow capacity up to 2,170 slpm
- <1 ppb H_2O, O_2, CO_2, CO, N_2, THC, He, Ar
- Patented Micro-Channel Palladium technology
- No regeneration or vessel replacement
- Easy to verify performance with Helium leak check

MonoTorr: Point-of-Use Heated Getter Purifiers

SAES Pure Gas MonoTorr heated getter purifiers are ideal solutions for point-of-use purification where CH_4 or N_2 removal is required.
Getter technology allows irreversible chemical absorption of impurities to sub-ppb levels.
Five different sizes are available for flow rates from 1 sccm to 150 slpm.

Gas	Helium / Argon	Nitrogen	Hydrogen
Impurities Removed	H_2O, O_2, CO, CO_2, H_2, N_2, THC	H_2O, O_2, CO, CO_2, H_2, THC	H_2O, O_2, CO, CO_2, N_2
Flow rates	0 - 100 slpm	0 - 100 slpm	0 - 150 slpm

MegaTorr: Bulk Gas Purifiers

SAES Pure Gas offers an entire line of bulk gas purifiers designed for complete facility-level purification.

Gas	Nitrogen/ Hydrogen	Nitrogen	Hydrogen	Hydrogen	Ammonia	CDA	Helium / Argon	Oxygen	Carbon Dioxide
Model	PS8 / PS7-A	PS9	PS7-H	PS7-PD	PS21	PS22	PS5	PS6	PS31 / PS32 / PS33
Media	Adsorber	Catalyst and Adsorber	Adsorber and Getter	Palladium	Adsorber	Adsorber	Getter	Catalyst and Adsorber	Catalyst and Adsorber
Impurities Removed	H_2O, O_2, CO, CO_2, H_2	H_2O, O_2, CO, CO_2, H_2, CH_4	H_2O, O_2, CO, CO_2, CH_4, N_2	H_2O, O_2, CO, CO_2, CH_4, N_2, Inert Gases	H_2O, O_2, CO_2, NMHC	H_2O, CO_2, Acids, Bases, Organics, Refractory Compounds	H_2O, O_2, CO, CO_2, H_2, CH_4, N_2	H_2O, CO, CO_2, H_2, CH_4	H_2O, O_2, CO, H_2, CH_4, Acids, Bases, Organics, Refractory Compounds
Flowrates	0 - 24,000 Nm^3/hr	0 - 12,000 Nm^3/hr	0 - 200 Nm^3/hr	0 - 140 Nm^3/hr	0 - 100 Nm^3/hr	0 - 24,000 Nm^3/hr	0 - 200 Nm^3/hr	0 - 3,000 Nm^3/hr	0 - 3,000 Nm^3/hr

CollectTorr: AMC Sampling Service

The AMC Sampling Service from SAES Pure Gas is an economical way to determine molecular contamination in Nitrogen, Carbon Dioxide, CDA or Cleanroom Air.

Detection limits are low Part-Per-Trillion (pptV) for Acids, Bases, Organics, or Refractory Compounds.

Two versions are available:
- Pressurized Gases
- Ambient Air / Cleanroom Air

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SAES Pure Gas is ISO9001 certified

ISO 9001:2008